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# **Revised Groundwater Management Zone Application**

**Remedial Design**

**Area 9/10**

**Southeast Rockford Groundwater Contamination  
Superfund Site**

**Rockford, Illinois**

**CERCLIS ID No. ILD981000417**

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**List of Acronyms**

1,1,1-TCA	1,1,1 Trichloroethane
1,1,2-TCA	1,1,2 Trichloroethane
1,1-DCE	1,1-Dichloroethene
1,2-DCA	1,2-Dichloroethane
1,2-DCE	1,2-Dichloroethene
Agency	United States or Illinois Environmental Protection Agency
AOC	Administrative Order on Consent
Area	Area 9/10
AS	Air Sparge
BGS	Below Ground Surface
CDM	Camp Dresser McKee
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
City	City of Rockford
cm	Centimeter
COC	Constituent of Concern
FESOP	Federally Enforceable State Operating Permit
FFS	Focused Feasibility Study
ft	Foot or Feet
GMZ	Groundwater Management Zone
HRC-X	Hydrogen Release Compound Extended Release Formula
HS	Hamilton Sundstrand
IAC	Illinois Administrative Code
IEMA	Illinois Emergency Management Agency
IEPA	Illinois Environmental Protection Agency
JP-4	Jet Propellant 4
MC	Methylene Chloride
MCL	Maximum Containment Level
MEK	Methyl Ethyl Ketone or 2-Butanone
NEMA	National Electrical Manufacturers Association
OM&M	Operation, Maintenance, and Monitoring
OSA	Outside Container Storage Area
OU	Operable Unit
PCE	Tetrachloroethene
PDI	Pre-Design Investigation
ppm	Parts Per Million
PRG	Preliminary Remediation Goals
RA	Remedial Action
RCRA	Resource Conservation and Recovery Act
RD	Remedial Design
RI	Remedial Investigation
ROD	Record of Decision
Sec	Second
SECOR	SECOR International Incorporated

**List of Acronyms (Cont.)**

SER	Southeast Rockford Groundwater Contamination Superfund Site
SIC	Standard Industrial Code
Site	Hamilton Sundstrand Plant #1
SVE	Soil Vapor Extraction
TACO	Tiered Approach to Corrective Action Objectives
TCE	Trichloroethene
TPH	Total Petroleum Hydrocarbons
USEPA	United States Environmental Protection Agency
USGS	United States Geological Survey
UST	Underground Storage Tank
VC	Vinyl Chloride
VOC	Volatile Organic Compound

## **1.0 INTRODUCTION**

This document provides the necessary technical information for the establishment of a Groundwater Management Zone (GMZ) for the Remedial Design for Source Control for the Area 9/10 portion of the Southeast Rockford Groundwater Contamination Superfund Site (CERCLIS ID No. ILD981000417) located in the City of Rockford, Winnebago County, Illinois.

Hamilton Sundstrand Corporation (HS) entered into an Administrative Order on Consent (AOC) with the United States Environmental Protection Agency (USEPA or Agency) on January 13, 2003 for the completion of a Remedial Design (RD) for source control for Area 9/10. Establishing a GMZ for Area 9/10 was identified as part of the Source Control Record of Decision (ROD) activities for Operable Unit Three (OU-3) dated May 2002. Establishing a GMZ for the HS Plant #1 facility (the Site) within Area 9/10 is part of the Remedial Design activities.

### **1.1 PURPOSE OF THE GMZ APPLICATION**

The purpose of this document is to provide the necessary information for USEPA approval (with concurrence from the Illinois Environmental Agency, to establish a three dimensional region containing groundwater being managed to mitigate impairment caused by a release of contaminants from the Site in general accordance with 35 Illinois Administrative Code (IAC) Part 620.250. The selected remedy at Area 9/10 of the Southeast Rockford Groundwater Contamination Site (SER) consists of air sparging and soil vapor extraction to address impacted groundwater (leachate) at the Hamilton Sundstrand Plant # 1 facility within Area 9/10.

For a GMZ to be established, the groundwater within the proposed GMZ must be managed to mitigate impairment caused by the release of contaminants from a site. Source removal actions will occur upon implementation of the remedial action. The RD for Area 9/10 was approved by USEPA on April 26, 2007 and provides for an air sparge and soil vapor extraction system as source control for groundwater (also referred to as leachate in the ROD), along with excavation and offsite disposal of source area soil at the Site.

This application contains the applicable information to determine the adequacy of the controls and the management of the GMZ at the site associated with the RD and future Remedial Action (RA) activities for the Site.

The remedy is described in the June 11, 2002 ROD for OU-3 Source Control. In addition to the selected remedy, soil identified as source material at the Outside Container Storage Area (OSA) will be excavated and disposed offsite along with limited groundwater biological enhancement in this location.

A summary of the selected remediation alternatives, air sparging (AS) and soil vapor extraction (SVE), from the ROD is as follows:

Groundwater (leachate) Source Control Remedy:

- Alternative SCL-9/10E: Enhanced Air Sparging, which consisted of installing injection wells along the boundary of the GMZ and source area, was the selected remedy. Enhanced Air Sparging will involve the placement of air injection wells down gradient and in the more highly-contaminated areas. Air will be injected into the contaminated groundwater, causing the contaminants to volatilize into air pockets in the soil above the water table. The air sparging will have to be operated in conjunction with the Soil Vapor Extraction System SCS-9/10C. Vapors will be collected underground prior to their treatment with activated carbon.
- The leachate remedy also includes institutional controls on groundwater usage within the GMZ, installation of monitoring wells, and implementation of a groundwater (leachate) monitoring program. Groundwater (leachate) will be monitored at predetermined intervals for 30 years, per Resource Conservation and Recovery Act (RCRA) post-closure groundwater monitoring requirements. Monitoring will typically consist of collecting groundwater and analyzing for volatile organic compounds (VOCs) and, where appropriate, parameters that measure biological activity.

Soil Source Control Remedy:

- Alternative SCS-9/10C: Soil Vapor Extraction with vapor treatment using activated carbon was the selected remedy for soils at Area 9/10. Under this alternative, contaminated soils will be remediated in situ via a SVE system. The system will consist of installing a series of wells connected by an underground piping system. A blower will provide a source of negative pressure to extract vapors from the subsurface. Extraction wells will be screened in the vadose zone, where they will remove the contaminants from the unsaturated zone, as well as groundwater (leachate) contaminants that might diffuse from the surface of the water table. A pilot program will be conducted prior to the design of the SVE system to determine well spacing and in situ air permeability. Vapors collected from the SVE unit will be treated through the use of granular activated carbon. Granular activated carbon can be used to treat vapors at this area because of the lower expected concentrations of contaminants from soils.
- The vapor treatment scenario may have to be reevaluated based upon additional data collection from Area 9/10 and the results of the SVE pilot program.

The proposed number of AS wells and SVE wells for soil and groundwater/leachate remediation are 15 and six, respectively.

## **1.2 SITE DESCRIPTION AND BACKGROUND**

### **Site Description**

Area 9/10 (Area) is an industrial area located within the City of Rockford, Winnebago County, Illinois. The Area is bound by Eleventh Street on the east, Twenty-Third Avenue on the north, Harrison Avenue on the south, and Sixth Street on the west. HS was the only potentially responsible party identified by the Illinois Environmental Protection Agency (IEPA or Agency) for Area 9/10. The HS Plant #1 facility is located within Area 9/10. The Site and Area 9/10 locations are shown on Figure 1.1. The address of the facility is 2421 Eleventh Street. The Site is located in the southeast portion of the City of Rockford, Illinois, in Section 36 of Township 44 north, Range 1 east, of Rockford Township in Winnebago County. The HS Plant # 1 facility

within Area 9/10 is a generally rectangular area of approximately 13 acres. The Site is bound on the north by 23rd Avenue and former Mid-States Industrial (2401 Eleventh Street), on the south by the former Nylint/DRB property (2525 Eleventh Street) and the Rockford Products parking lot, to the west by 9th Street, and on the east by 11th Street. The property boundary for the HS Plant #1 facility is shown on Figure 1.2.

The SER site consists of three Operable Units, each with a corresponding ROD. Operable Unit One (Drinking Water Operable Unit) provided some area residents with a safe drinking water supply by connecting 283 homes to the city water supply. Operable Unit Two (Groundwater Operable Unit) addressed the area-wide groundwater contamination. An additional 264 homes were connected to the city water supply and a remedial investigation (RI) was conducted to characterize the nature and extent of the groundwater contamination and to provide information on source areas responsible for contamination. This operable unit identified four source areas (Areas 4, 7, 9/10, and 11). Operable Unit Three (Source Control Operable Unit) began as a State lead action to select remedies for each of the source areas. Based on the field investigation activities conducted by the IEPA at each of the areas, cleanup alternatives and selected remedies were presented in the May 2002 Source Control Remedies ROD issued by the USEPA and the IEPA.

The selected source control remedies for Area 9/10 are enhanced air sparging for leachate, soil vapor extraction with treatment of vapors by granular activated carbon for soil, and institutional controls. The term leachate is defined as water that passed through waste and picked up contaminants present in the waste.

#### **HS Plant # 1 Facility Constituents of Concern**

The HS Plant #1 facility was identified during the RI, performed by Camp Dresser McKee (CDM) for IEPA, and the Pre-Design Investigation (PDI), undertaken by HS, as containing groundwater impacted with VOCs above the Preliminary Remediation Goals (PRGs) identified in the ROD. The compounds detected at concentrations above the PRGs are referred to as constituents of concern (COCs). A network of 28 monitoring wells was established at the facility during the PDI. The soil boring and monitoring well locations are shown on Figure 1.3.

The soil COCs for Area 9/10 were identified as: 1,1-dichloroethene; methylene chloride (MC) (possible laboratory artifact); tetrachloroethene; 1,1,1 trichloroethane; 1,1,2 trichloroethane; and trichloroethene as agreed upon with USEPA and IEPA.

The RI also identified COCs in groundwater with concentrations above PRGs. The PRGs were based on 35 IAC Part 620 Groundwater Quality Class I groundwater, 35 IAC Part 742 Tiered Approach to Corrective Action Objectives (TACO), and USEPA maximum contaminant level (MCL) regulations. The groundwater COCs were identified as 1,1-dichloroethene (1,1-DCE); 1,2-dichloroethane (1,2-DCA); 1,2-dichloroethene (1,2-DCE); ethylbenzene; tetrachloroethene (PCE); 1,1,1-trichloroethane (1,1,1-TCA), 1,1,2-trichloroethane (1,1,2-TCA); trichloroethene (TCE); and vinyl chloride (VC), as agreed upon with USEPA and IEPA. The historical groundwater analytical results are shown on Figure 1.4.

The following sections describe the Site conditions considered in the selection and evaluation of the preferred remedy.

### **Extent of Soil Impact**

The initial RI activities completed by CDM in Area 9/10 consisted of soil gas samples and limited soil sampling. A more comprehensive Pre-Design Investigation consisting of 38 soil borings across the Site, including adjacent properties and public right of ways, was completed by HS in 2003 and 2004 as shown on Figure 1.3. This effort identified three areas of soils which exceed the PRG (and TACO) remediation objectives (ROs). These areas were the OSA, the loading dock and former container storage area, and the western part of the South Alley. The ROD requires that source material be addressed in the remedial design.

Soil in the OSA may be considered source material. Concentrations of 1,1,1-TCA, 1,1-DCE, PCE, TCE, mercury, cadmium, and lead were detected in samples S1 through S8 above ROs. A number of the constituents were found in only relatively shallow soil (less than 8 feet bgs). PCE and cadmium were the only constituents detected above ROs in deeper soils. Metals were not specifically identified as COCs in the PRGs in the ROD. However, the OSA is also subject to RCRA regulations, and these metals are of concern from this perspective. The soil analytical

results from sampling conducted at the Outside Container Storage Area (OSA) are summarized in Table 1.1.

In the loading dock and former container storage areas, soil concentrations at four boring locations (S12, S13, S14, and SMW-15) exceeded ROs. The results of soil sampling conducted at the HS Plant 1 facility and at offsite properties are summarized in Table 1.2. The elevated concentrations were all in the shallow soil sample intervals at these locations. There were no RO exceedances in the deeper soil samples analyzed at these locations and the extent of impact is believed to be limited vertically. The soil impact at the SMW-15 location will be addressed as part of the remedial design. This area is presently covered with asphalt.

There was a soil PCE RO exceedance at the SMW-5 location (5 to 7 feet) southwest of the HS Plant # 1 building. There was, however, no PCE detected in the deep soil sample at this location. This area is not considered source material. This location is, however, adjacent to the treatment zone of the air sparge and soil vapor extraction system in the South Alley.

On July 24, 2000 three (#67, #69, and #70) of six underground storage tanks (USTs) that were discovered and removed from beneath the concrete floor within the building south of the loading dock were determined to be leaking. A release was reported to the Illinois Emergency Management Agency (IEMA) and Incident #20001409 was assigned to this event. The approximate location of the former USTs is shown on Figure 1.5. Soil samples were collected from the excavation which indicated that soil in the vicinity of the USTs was impacted. As these tanks were found during a construction project additional investigation to determine the vertical extent of the contamination was not able to be completed at that time. As there is no vertical delineation it is assumed that there is the potential that contaminants in soil at this location could impact groundwater. At the time of the UST removal approximately 50 cubic yards of impacted soil and backfill was removed and disposed offsite. This area was not accessible during the PDI activities. The soil analytical results from sampling conducted during the 2000 LUST Incident are summarized in tables included in Appendix A.

There is also some hydrocarbon that has been observed on the water table in the eastern portion of the South Alley. A definitive source of the Jet Propellant 4 (JP-4) in this area has not been identified. There are a number of current and former USTs and piping in this area. There

are three hydrocarbon recovery wells (RW-1, RW-2 and RW-3R) that were installed in the early 1990's. In 2004 the existing hydrocarbon recovery pumps were replaced with pneumatic skimmer pumps. The skimmer pump operation, maintenance, and monitoring is ongoing. The location of the South Alley recovery wells is also shown on Figure 1.3.

### **Source Material Soil and Groundwater Remediation**

The Area 9/10 Remedial Design will consist primarily of: 1) soil excavation and associated activities in the OSA and 2) groundwater (leachate) remediation in the western portion of the South Alley via AS and SVE. Additional details regarding each of these planned efforts are provided below.

The VOC impacted soil at the OSA is a 65 foot by 50 foot area of approximately 3,300 square feet. HS plans to address these soils by excavation with offsite soil disposal. The impacted soil is primarily in the soil column from ground surface to six feet in depth. The total estimated in place quantity of impacted soil at the OSA is 550 cubic yards (850 tons). Figure 1.5 illustrates the lateral extent of soil impact above ROs at the OSA. A work plan for the excavation of the source material at the OSA was submitted to USEPA dated April 27, 2005 and was approved with modification on August 15, 2005 and is being incorporated into the Final Remedial Design. There will also likely be some limited soil excavation in the loading dock area in the vicinity of SMW-15. The groundwater and soil remediation areas are shown on Figure 1.6.

The air sparge and soil vapor extraction system will consist of 15 and six wells respectively. The AS and SVE wells will be operated in three banks of five AS wells and two SVE wells as an individual treatment cell. The treatment cells will be operated successively using a timing relay and air solenoid. Each of the banks will be pulsed for a period of four hours initially. The pulse time may be adjusted based on evaluation of the initial removal results. The approximate locations of the proposed wells are shown on Figure 1.7.

### **1.3 DOCUMENT OVERVIEW**

The purpose of this document is to present the technical information for establishing a GMZ for the Site associated with Area 9/10 at the SER Site. Section 2.0 of this document is organized as follows:

- General Facility Information including location, type of facility, geology and hydrogeology, and release history is provided in Section 2.1;
- Release Information including a summary of the COCs, investigation activities, monitoring well network, groundwater monitoring dates and results is provided Section 2.2;
- GMZ region including horizontal and vertical extent is discussed in Section 2.3;
- Planned Remedial Actions are outlined in Section 2.4; and
- Point of Compliance wells are discussed in Section 2.5.

## **2.0 GMZ APPLICATION**

This application Section contains the applicable information to determine the adequacy of the controls and the management of the GMZ at the site. The items presented below are thoroughly addressed and the current information associated with the proposed GMZ is provided.

Per 35 IAC Part 620.250 for a GMZ to be established, the groundwater within the proposed GMZ must be managed to mitigate impairment caused by the release of contaminants from a site. Source removal actions to prevent additional contamination from reaching groundwater must occur along with groundwater management. Groundwater management to mitigate impairment can use various combinations of technology. These include techniques such as groundwater removal and in-situ treatment. However, any action must improve the quality of groundwater caused by the release of contaminants from the site. GMZs can only be approved for areas where groundwater improvement is occurring.

This GMZ application section is presented in the IEPA requested format (Establishing a Groundwater Management Zone at RCRA Facilities, October 12, 2001).

### **2.1 GENERAL FACILITY INFORMATION**

*General information regarding the facility:*

a. *Facility name;*

The GMZ is being established associated with the Hamilton Sundstrand Plant #1 facility.

b. *Facility address;*

The facility address is 2421 11<sup>th</sup> Street, Rockford, Illinois 61125.

c. *County in which facility is located;*

The facility is located in Winnebago County.

d. *Illinois EPA, Bureau of Land, and USEPA Identification Numbers;*

The IEPA identification number is 2010300074 and the USEPA identification number is ILD981000417.

- e. *A general description of the type of industry, products manufactured, raw materials used, location and size of the facility, including SIC codes;*

Plant #1 is an aeronautic and aerospace manufacturing facility. The facility makes various component parts for jet aircraft. Metal, plastic, rubber and ceramic are the raw materials used in the components. The manufacturing building complex encompasses nearly the entire property of approximately 13 acres. The property is bounded by 9<sup>th</sup> Street to the west, 23<sup>rd</sup> Avenue and the former Mid-States Industrial facility (2401 Eleventh Street) to the north, 11<sup>th</sup> Street to the east, and the former Nylint/DRB property (2525 Eleventh Street), and Rockford Products Incorporated parking lot properties to the south. The standard industrial code (SIC) for the facility is 3724 (Aircraft Engines and Engine Parts).

- f. *An identification of specific units (operating or closed) present at the facility for which the GMZ is proposed;*

The GMZ is proposed for the groundwater potential source areas identified at the facility which to date include the following:

- Outside Container Storage Area;
- 2000 LUST incident #20001409; and
- East South Alley – JP-4.

The GMZ would also apply to any additional areas of impact identified at the Site by future investigation activities.

- g. *A USGS topographic or county map showing the location of the site and a more detailed scaled map of the facility with each waste management unit identified in Item 1.f above. Map scale must be specific and the location of the facility must be provided with respect to Township, Section, and Range;*

The location of the Site is shown on a United State Geological Survey (USGS) map as Figure 1.1. A more detailed map of the facility which identifies the areas listed in Section 1f above is provided as Figure 1.5. The facility is located in the southeast portion of the City of Rockford, Illinois, in Section 36 of Township 44 north, Range 1 east, of Rockford Township in Winnebago County.

*h. A description of the geology and hydrogeology within the proposed GMZ and the surrounding area;*

The geological profile encountered at the HS Plant #1 Facility generally consists of surface pavement (asphalt, concrete pad, or floor slab) with a gravel fill subbase from ground surface to one to two feet below ground surface (bgs), underlain by silty clay to a depth of four to eight feet bgs, which is underlain by poorly to well graded sand (predominantly fine to medium sand) with some gravelly units to below the maximum depth of the borings at the site (140 feet). The sand and gravel has been reported to extend to a depth of 230 to 250 feet bgs in the vicinity of Area 9/10. This glacial outwash is identified as the Mackinaw Member of the Henry Formation. Bedrock encountered in borings/wells in the area is part of the Ordovician period Ancell Group (sandstone) of the Paleozoic era. Cross section alignments are shown on Figure 2.1 and east-west (A-A') and north south (B-B') cross sections are provided as Figures 2.2 and 2.3, respectively.

The vadose zone extends within the sand to a depth of approximately 30 feet bgs. Within the vadose zone sand there is a discontinuous one to four feet thick silt layer at approximately 18 to 23 feet bgs which was identified in the OSA. This layer was observed only in a limited area in the northwest portion of the Site. No other substantive or continuous fine grained layers or lenses were documented during the PDI investigation activities. At depth within the aquifer some coarser grained gravelly sand and sandy gravel units were observed.

The uppermost aquifer at the Site is the sand and gravel aquifer. The potentiometric surface level ranges between 30 to 35 feet bgs. This level varies somewhat seasonally and appears to mirror the general rainfall pattern of the

area. Over the past several years the water level has typically been approximately 33 feet bgs. The aquifer is greater than 100 feet in thickness at the Site. The groundwater flow is to the west-southwest at a gradient of approximately 0.0008 ft/ft (0.6 ft / 715 ft in March 2006) toward the Rock River. The hydraulic conductivity of the sand aquifer is  $1.22 \times 10^{-3}$  cm/sec and the aquifer porosity is assumed to be 0.25 (both from the CDM Focused Feasibility Study [FFS] 2000). Using this data, it is estimated that the average linear velocity (also referred to as groundwater seepage velocity) is likely between 4 and 10 feet per year. The March 2006 Groundwater Potentiometric Surface Map is presented as Figure 2.4.

i. *Groundwater classification at the site;*

The groundwater in the uppermost aquifer is Class I Groundwater.

j. *A description of the circumstances under which the release from each waste management unit identified in Item 1.f above, to groundwater was identified.*

Following is a list of the source areas and the circumstances under which a release to groundwater was identified. If a release to groundwater has not been confirmed through investigation then the area is identified as having the potential to impact groundwater.

The areas identified in Item 1f above were identified as follows:

- Outside Container Storage Area;
- 2000 LUST incident #20001409 (potential); and
- East South Alley – JP-4.

## 2.2 RELEASE INFORMATION

Area 9/10 is part of the larger site-wide Southeast Rockford Groundwater Contamination Superfund Site. This area extends over a large portion of southeast Rockford and has several areas which have been identified for source control activities. Based on the analytical data collected to date it appears there are upgradient facilities and operations that have impacted

groundwater. Prior to discussion of the COCs identified at the Site it is very important to note is that impacted groundwater is and has been migrating onto the HS Plant #1 facility from the Southeast Rockford Groundwater Contamination Superfund Site. The following chemicals have been detected in the Area 9/10 upgradient wells:

Total Petroleum Hydrocarbon (TPH) - Jet Fuel (JP-4)

Tetrachloroethene

1,2-Dichloroethene (total)

Carbon tetrachloride

Acetone

Chloroform

1,1,1-Trichloroethane

1,1-Dichloroethane

1,1-Dichloroethene

Trichloroethene

The following chemicals have been detected in upgradient wells at levels above the Class I groundwater remediation objectives:

Tetrachloroethene

Chloroform

Trichloroethene

*Information Regarding the Release, including:*

*a. The chemical constituents released to the groundwater;*

The following chemical constituents have been detected in groundwater at the HS Plant #1 facility within Area 9/10.

TPH - Jet Fuel (JP4)

Ethylbenzene

1,2-Dichloroethane

Toluene

Tetrachloroethene

Xylenes (total)  
1,2-Dichloroethene (total)  
Carbon tetrachloride  
Acetone  
Chloroform  
Benzene  
1,1,1-Trichloroethane  
Chloroethane  
Vinyl chloride  
Methylene chloride  
1,1-Dichloroethane  
1,1-Dichloroethene  
2-Butanone (MEK)  
1,1,2-Trichloroethane  
Trichloroethene

- b. *Identification of the chemical constituents detected in groundwater that are above the applicable standard in 35 Ill. Adm. Code Part 620;*

The following chemical constituents have been detected in groundwater at concentrations above the Class I groundwater standards:

1,2-Dichloroethane  
Tetrachloroethene  
Chloroform  
Benzene  
1,1,1-Trichloroethane  
Vinyl chloride  
1,1-Dichloroethane  
1,1-Dichloroethene  
1,1,2-Trichloroethane  
Trichloroethene

- c. *A description of how the site has been investigated to determine the source or sources of the release;*

The initial Superfund field work was completed by the IEPA contractor, CDM of Chicago, Illinois, in the form of a RI at the Site over the period of 1993 to 2000. HS performed a more comprehensive Site-wide PDI consisting of 38 borings and installation of a monitoring well network of 21 wells in 2003 and 2004. The groundwater monitoring network established consists of 28 wells (SMW-1 through SMW-22, MW127, MW201, MW202, MW203, MW3-FGA, and MW7-FGA).

- d. *A description of how groundwater has been monitored to determine the rate and extent of the release;*

Groundwater monitoring activities from wells at and around the Site have been conducted over the period of 1996 to 2004. Details of the activities completed have been summarized in the following documents:

- Final Remedial Investigation Report for the Southeast Rockford Source Control Operable Unit dated July 25, 2000 prepared by CDM for IEPA;
- Semi-Annual and Annual groundwater reports contracted by the City of Rockford 1999-2002 which were prepared by Nationwide Environmental Services, Inc. of Denver, Colorado; and
- Pre-Design Investigation Report dated April 28, 2006 prepared by SECOR International Incorporated (SECOR) for HS.

- e. *A description of the groundwater monitoring network and groundwater sampling protocols in place at the facility;*

The RI groundwater sampling was completed by CDM using a Fultz pump. The City of Rockford groundwater survey sampling method was not documented in the data summary reports.

The Site groundwater monitoring network at the end of the PDI activities consisted of 28 wells. The groundwater sampling protocols used during the PDI activities were identified in the Field Sampling Plan dated March 31, 2003 and consisted of purging and hand bailing the wells with the exception of the four wells monitored by the City of Rockford. These wells were sampled using the

flow through cell purging equipment of the contractor (Eagan and Anderson) to the City of Rockford.

The GMZ monitoring network will consist of thirteen (13) wells. These will include nine (9) existing wells and four wells to be installed. Existing wells SMW-1, SMW-2, SMW-19, MW203, and MW7-FGA will be on the upgradient side of the GMZ and existing wells SMW-4, SMW-8, SMW-20 and SMW-21 and the four (4) new wells (GMZ-1 through GMZ-4) will be on the downgradient side. These new proposed wells will be installed as part of the Remedial Action activities. The locations of the existing and proposed GMZ monitoring wells are shown on Figure 2.5. Each of these wells has or will have a 15 feet long screen and set from approximately 30 feet to 45 feet bgs.

HS may use the purge and bail method of sampling as described in the Field Sampling Plan dated March 31, 2003. The actual protocol to be used will be contained in the Operation, Maintenance, and Monitoring (OM&M) Plan which is being developed as part of the Final Remedial Design.

f. *The schedule for monitoring of the groundwater;*

The schedule for groundwater monitoring will consist of the following:

The actual schedule for the sampling of the GMZ monitoring well network will be contained in the Final OM&M Plan which is being developed as part of the Remedial Action. Monitoring frequency will likely be based in part on the system remediation performance and the actual analytical results obtained from the monitoring effort. Outlined below are some of the considerations that will be incorporated into the decision making on when and how frequently groundwater monitoring will be performed:

- An initial or baseline round of groundwater samples may be collected after construction of the RA infrastructure but prior to implementation of the RA activities.

- Periodic evaluation of groundwater conditions based on the results of the system operation as outlined in the OM&M Plan submitted as part of the Final Design (100% Design) documents. This document will be revised and finalized as a requirement of the RA Statement of Work. This period will likely be at a minimum annually for the initial remediation operation (estimated to be two years).
  - The interval period of monitoring after the initial remediation may increase after the remediation system reaches consistent operating performance.
- g. *A summary of the results of groundwater monitoring associated with the release at each waste management unit identified in Item 1.f above. The summary of groundwater results should provide the following information:*

i. *Dates of sampling;*

A groundwater sample was collected from the MW127 well on October 11, 1993. Groundwater samples were collected from some or all of the IEPA/City wells (MW201, MW202, and MW203) by CDM as part of the Source Control RI in July 1996.

Samples were also collected from some or all of the IEPA/City wells by the contractor to the City of Rockford, Nationwide Environmental Services of Denver, Colorado, on the following dates:

- October 11, 1993;
- July 1996;
- June 1, 1999;
- October 27, 1999;
- February 15-16, 2000;
- April 18, 2000;
- July 20, 2000;
- November 16, 2000;
- April 13, 2001;
- October 2001;

- October 2002; and
- December 2003.

As part of the PDI two rounds of groundwater samples were collected by SECOR on behalf of HS from the Site monitoring well network in April and November 2004. The historical groundwater analytical data for the site including the dates of sampling are provided in Table 2.1.

*ii. Identification of monitoring wells;*

Following is a list of the monitoring wells grouped by naming convention that have been used in the evaluation of groundwater at the Site:

- SMW-1 through SMW-22;
- MW3-FGA and MW7-FGA; and
- MW127, MW201, MW202, and MW203.

*iii. Chemical constituents analyzed and concentrations in parts per million (ppm) for each monitoring well identified in Item 2.g.ii above;*

The chemical constituents analyzed and the concentrations in ppm for each monitoring well identified in Item 2.g.ii are provided in Table 2.1.

## **2.3 GMZ HORIZONTAL AND VERTICAL EXTENT**

*Scaled drawings identifying the horizontal and vertical boundaries of the proposed GMZ.*

The GMZ is actually composed of two areas, GMZ 1 and GMZ 2, separated by the Illinois Central Railroad property. The overall horizontal extent of the proposed GMZ is approximately 1235 feet east to west and 530 feet north to south on the western portion of the Site and 350 feet north to south on the eastern portion of the Site. The GMZ extends to a depth of approximately 45 feet bgs which is 685 feet above mean sea level. The average depth to water over the past two years has been approximately 33 feet. The horizontal and vertical extent of the proposed GMZ is shown on Figure 2.2, 2.3, and 2.5. The GMZ and air sparge wells cross

section, which shows the placement of the air sparge wells with respect to the vertical limit of the GMZ, is provided as Figure 2.6.

## **2.4 PLANNED REMEDIAL ACTION**

*Information regarding the approved remedial action including:*

a. *A description of the approved remedial action;*

HS has received approval of the March 2007 RD in a letter from USEPA dated April 26, 2007. The RD for SER Area 9/10 incorporates the selected remedies in the Source Control ROD, which were the use of AS and SVE technologies. The RD also incorporates excavation of soil at the OSA and Loading Dock areas.

b. *A description of how the approved remedial action has impacted the release;*

The SVE system will remove contaminants from the unsaturated zone, as well as groundwater (leachate) contaminants that diffuse from the surface of the water table due to the action of the AS system, the other principal component of the RA.

The SWMUs and Areas of Concern at the Site will be addressed under the CERCLA or RCRA programs as appropriate. The approximate locations of the SWMUs and Areas of Concern are provided in Figure 2.7. These areas will be investigated when they become accessible. The investigation results will indicate whether or not each area is a likely source of impact to groundwater, or if any could reasonably be assumed to become a source in the future. Source areas will then be addressed as part of the RA process, with proposals for remedial activities made to U.S. EPA and Illinois EPA as necessary.

c. *A description of how the approved remedial action is operated and maintained; A projected schedule for completion of remediation;*

The general operation of the remedial action will be as follows:

AS and SVE systems are planned to be operated in banks of multiple sparge points (5) and SVE wells (2) on a timing system that will pulse each of the three banks periodically.

The initial details of how the system will be operated and maintained are contained in the OM&M Plan, which is part of the approved RD and will be revised and finalized as a requirement of the RA Statement of Work. Presently there is not a projected schedule for the remediation. Completion of remediation will be performance based. It must also be noted that impacted groundwater is migrating onto the Site from other areas within the Southeast Rockford Groundwater Superfund Site outside of Area 9/10.

- d. *An identification of any and all permits obtained from the Illinois EPA for the remedial action;*

The remedial action has not yet been implemented and no permits have been obtained for this purpose.

It is important to note that, as identified at Section 121(e) of CERCLA, and in the NCP at 40 CFR 300.400(e), no federal, state, or local permits are required for any remedial actions conducted entirely on-site. However, on-site emissions and/or discharges need to attain a level of treatment and management meeting all substantive technical requirements that may be required if a permit were necessary. Emissions or discharges that leave the site or response actions that are conducted off-site are subject to applicable permitting requirements.

Several activities that are anticipated as part of the RA that will require meeting technical requirements are the following:

- Return of condensate water to the aquifer through an air sparge point -- subject to Class V injection permit requirements
- Placement of HRC-X into the wells in the OSA - subject to Class V injection permit requirements

- SVE air emissions – subject to air permit treatment requirements if over 8 lbs per hour total volatile emissions (also subject to the facility FESOP requirements)
- e. *A description of how groundwater at the facility will be monitored following the future completion of the remedy to ensure that the groundwater quality standards have been attained;*  
Upon completion of the remedy it will be decided in conjunction with USEPA when, how often, or if groundwater monitoring is necessary.
- f. *A discussion addressing the adequacy of the controls and management of the proposed GMZ at the site;*  
The groundwater within the GMZ will be actively managed and monitored in accordance with the processes and procedures outlined in the OM&M Plan which is included in the approved RD. This will entail routine operation and maintenance activities, groundwater monitoring, and periodic reporting of the remediation performance and GMZ groundwater analytical results.
- g. *Course of action for future activities and/or request for modification in regards to the proposed GMZ at the site.*  
It is envisioned that if modifications to the GMZ are necessary that a written plan would be prepared and submitted to USEPA providing the rationale and justification. This may be done either as a stand alone document or as part of a periodic GMZ reevaluation.

## **2.5 POINT OF COMPLIANCE**

*In any GMZ, the goal is remediation of the groundwater to the level of the standards applicable to that class of groundwater. This goal does not mean all groundwater within the GMZ must be returned to the groundwater standard. On the other hand, groundwater within the GMZ that is beyond the point of compliance as established under 35 Ill. Adm. Code Part 620.505(a) is to be remediated to the level applicable to that groundwater class. However, groundwater contamination within the three-dimensional zone between the compliance point wells and the*

waste management unit could still exceed the applicable standards at completion of the corrective action. If this is the case, post-remediation monitoring may be necessary.

The proposed GMZ monitoring network will consist of thirteen (13) wells: five (5) existing upgradient wells (SMW-1, SMW-2, SMW-19, MW203 and MW7-FGA); four (4) existing downgradient wells (SMW-4, SMW-8, SMW-20 and SMW-21); and four (4) proposed new downgradient wells GMZ-1 through GMZ-4. The point of compliance wells will be the eight (8) downgradient wells noted. The locations of these wells are shown on Figure 2.5.

**TABLES**

**TABLE 1.1**  
**SOIL ANALYTICAL RESULTS – OUTSIDE CONTAINER STORAGE AREA (OSA)**  
**(S1-S8) – VOCs, DRO/JP-4, and RCRA METALS**  
**AREA 9/10**  
**SOUTHEAST ROCKFORD GROUNDWATER CONTAMINATION SUPERFUND SITE**  
**ROCKFORD, IL**

Analyte	ROD - Preliminary Remediation Goals and/or Section 742.Table A: Tier 1 Soil Remediation Objectives for Residential Properties				Location Depth Sample Date	SB-S1 2-4'	SB-S1 4-6'	SB-S1 6-8'	SB-S1 8-10'	SB-S1 10-12'	SB-S1 12-14'	SB-S1 14-16'	SB-S1 16-18'	SB-S1 18-20'	SB-S1 20-22'	SB-S1 22-24'	SB-S1 24-26'	SB-S1 26-28'	SB-S1 28-30'	SB-S1 30-32'	SB-S1 32-34'																
						Soil Ingestion (ug/kg)	Soil Inhalation (ug/kg)	Soil Component of Groundwater Class 1 (ug/kg)	ADL (ug/kg)	Units	ug/kg																										
	RES	Q																																			
1,1,1-Trichloroethane	NL	1,200,000	2,000	**		220,000	H	140,000		760		83		31		57		65		83		120		410		13		82		11		23		17		8.5	
1,1,2,2-Tetrachloroethane	NL	NL	NL	NL		440	U	410	U	90	U	5.1	U	5.1	U	4.7	U	4.8	U	9.4	U	7.2	U	5.1	U	5.6	U	4.9	U	5.3	U	5.2	U	5.4	U		
1,1,2-Trichloroethane	310,000	1,800,000	20	**		440	U	410	U	90	U	5.1	U	5.1	U	4.7	U	4.8	U	9.4	U	7.2	U	5.1	U	5.6	U	4.9	U	5.3	U	5.2	U	5.4	U		
1,1-Dichloroethane	7,800,000	1,300,000	23,000	**		7,600		11,000		230		5.1	U	4	Ja	11		8.2		7.2	Ja	17		120		5.6	U	15		5.3	U	5.3	U	5.2	U	5.4	U
1,1-Dichloroethene	700,000	1,500,000	60	**		440	U	560		90	U	5.1	U	5.1	U	4.7	U	4.8	U	9.4	U	7.2	U	5.1	U	5.6	U	4.9	U	5.3	U	5.3	U	5.2	U	5.4	U
1,2-Dichloroethane	7,000	400	20	**		440	U	410	U	90	U	5.1	U	5.1	U	4.7	U	4.8	U	9.4	U	7.2	U	5.1	U	5.6	U	7.2		5.3	U	5.3	U	5.2	U	5.4	U
1,2-Dichloroethene (total)	NL	NL	NL	NL		12,000		9,400		280		19		6.1		14		12		11		24		130		5.6	U	22		5.3	U	4.5	Ja	3.5	Ja	5.4	U
1,2-Dichloropropane	9,000	15,000	30	**		440	U	410	U	90	U	5.1	U	5.1	U	4.7	U	4.8	U	9.4	U	7.2	U	5.1	U	5.6	U	4.9	U	5.3	U	5.2	U	5.4	U		
2-Butanone (MEK)	NL	NL	NL	NL		440	U	410	U	90	U	5.1	U	5.1	U	4.7	U	4.8	U	9.4	U	7.2	U	5.1	U	5.6	U	4.9	U	5.3	U	5.2	U	5.4	U		
2-Hexanone	NL	NL	NL	NL		440	U	410	U	90	U	5.1	U	5.1	U	32		4.8	U	9.4	U	7.2	U	5.1	U	5.6	U	4.9	U	5.3	U	5.2	U	5.4	U		
4-Methyl-2-pentanone (MIBK)	NL	NL	NL	NL		440	U	410	U	90	U	5.1	U	5.1	U	4.7	U	4.8	U	9.4	U	7.2	U	5.1	U	5.6	U	4.9	U	5.3	U	5.2	U	5.4	U		
Acetone	7,800,000	100,000,000	16,000	**		440	U	410	U	90	U	5.1	U	5.1	U	18		4.8	U	13		10	M	5.1	U	5.6	U	9.2		6.8	M	5.3	U	18		12	
Benzene	12,000	800	30	**		110	U	100	U	22	U	5.1	U	5.1	U	4.7	U	4.8	U	9.4	U	7.2	U	4.7	Ja	5.6	U	4.9	U	5.3	U	5.3	U	2.6	Ja	5.4	U
Bromodichloromethane	10,000	3,000,000	600	**		440	U	410	U	90	U	5.1	U	5.1	U	4.7	U	4.8	U	9.4	U	7.2	U	21		5.6	U	4.9	U	5.3	U	5.2	U	5.4	U		
Bromoform	81,000	53,000	800	**		440	U	410	U	90	U	5.1	U	5.1	U	4.7	U	4.8	U	9.4	U	7.2	U	5.1	U	5.6	U	4.9	U	5.3	U	5.2	U	5.4	U		
Bromomethane	110,000	10,000	200	**		440	U	410	U	90	U	5.1	U	5.1	U	4.7	U	4.8	U	9.4	U	7.2	U	5.1	U	5.6	U	4.9	U	5.3	U	5.2	U	5.4	U		
Carbon disulfide	7,800,000	720,000	32,000	**		440	U	410	U	90	U	5.1	U	5.1	U	4.7	U	4.8	U	9.4	U	7.2	U	5.1	U	5.6	U	4.9	U	5.3	U	5.2	U	5.4	U		
Carbon tetrachloride	5,000	300	70	**		440	U	410	U	90	U	5.1	U	5.1	U	4.7	U	4.8	U	9.4	U	7.2	U	5.1	U	5.6	U	4.9	U	5.3	U	5.2	U	5.4	U		
Chlorobenzene	1,600,000	130,000	1,000	**		440	U	410	U	90	U	5.1	U	5.1	U	4.7	U	4.8	U	9.4	U	7.2	U	5.1	U	5.6	U	4.9	U	5.3	U	5.2	U	5.4	U		
Chloroethane	NL	NL	NL	NL		440	U	410	U	90	U	5.1	U	5.1	U	4.7	U	4.8	U	9.4	U	7.2	U	5.1	U	5.6	U	4.9	U	5.3	U	5.2	U	5.4	U		
Chloroform	100,000	300	600	**		440	U	410	U	90	U	5.1	U	5.1	U	4.7	U	4.8	U	9.4	U	7.2	U	5.1	U	5.6	U	4.9	U	5.3	U	5.2	U	5.4	U		
Chloromethane	NL	NL	NL	NL		440	U	410	U	90	U	5.1	U	5.1	U	4.7	U	4.8	U	9.4	U	7.2	U	5.1	U	5.6	U	4.9	U	5.3	U	5.2	U	5.4	U		
cis-1,3-Dichloropropene	NL	NL	NL	NL		440	U	410	U	90	U	5.1	U	5.1	U	4.7	U	4.8	U	9.4	U	7.2	U	5.1	U	5.6	U	4.9	U	5.3	U	5.2	U	5.4	U		
Ethylbenzene	7,800,000	400,000	13,000	**		110	U	100	U	22	U	5.1	U	5.1	U	4.7	U	4.8	U	9.4	U	7.2	U	3.1	Ja	5.6	U	4.9	U	5.3	U	5.2	U	2.8	Ja		
Methylene chloride	85,000	13,000	20	**		440	U	410	U	90	U	5.1	U	5.1	U	4.7	U	4.8	U	6.8	Ja	14		5.1	U	5.9		17		6.6		5.3	U	5.2	U	5.4	U
Styrene	16,000,000	1,500,000	4,000	**		440	U	410	U	90	U	5.1	U	5.1	U	4.7	U	4.8	U	9.4	U	7.2	U	5.1	U	5.6	U	4.9	U	5.3	U	5.2	U	5.4	U		
Tetrachloroethene	12,000	11,000	60	**		360,000		150,000		2,200		520		62		73		110		180		220		660		38		130		32		46		35		23	
Toluene	16,000,000	650,000	12,000	**		1,700		2,300		22	U	5.1	U	5.1	U	6.4	M	4.8	U	9.4	U	7.2	U	9.6		5.6	U	4.9	U	5.3	U	5.3	U	6.8		7	H
trans-1,3-Dichloropropene	NL	NL	NL	NL		440	U	410	U	90	U	5.1	U	5.1	U	4.7	U	4.8	U	9.4	U	7.2	U	5.1	U	5.6	U	4.9	U	5.3	U	5.2	U	5.4	U		
Trichloroethene	58,000	5,000	60	**		18,000		10,000		90	U	4.5	Ja	3.3	Ja	5.4		6.3		8.1	Ja	12		27		5.6	U	9.8		5.3	U	5.3	U	5.2	U	5.4	U
Vinyl chloride	460	280	10	**		440	U	410	U	90	U	5.1	U	5.1	U	4.7	U	4.8	U	9.4	U	7.2	U	5.1	U	5.6	U	4.9	U	5.3	U	5.2	U	5.4	U		
Xylenes (total)	160,000,000	320,000	150,000	**		330	U	310	U	67	U	5.1	U	5.1	U	3.3	Ja	4.																			

See endnotes for analytical qualifier explanation.

**TABLE 1.1**  
**SOIL ANALYTICAL RESULTS – OUTSIDE CONTAINER STORAGE AREA (OSA)**  
**(S1-S8) – VOCs, DRO/JP-4, and RCRA METALS**  
**AREA 9/10**  
**SOUTHEAST ROCKFORD GROUNDWATER CONTAMINATION SUPERFUND SITE**  
**ROCKFORD, IL**

**S2**

Analyte	ROD - Preliminary Remediation Goals and/or Section 742.Table A: Tier 1 Soil Remediation Objectives for Residential Properties				Location Depth Sample Date	SB-S2 2-4'	SB-S2 4-6'	SB-S2 6-8'	SB-S2 8-10'	SB-S2 10-12'	SB-S2 12-14'	SB-S2 14-16'	SB-S2 16-18'	SB-S2 18-20'	SB-S2 20-22'	SB-S2 22-24'	SB-S2 24-26'	SB-S2 26-28'	SB-S2 28-30'	SB-S2 30-32'															
	Soil Ingestion (ug/kg)	Soil Inhalation (ug/kg)	Soil Component of Groundwater Class 1 (ug/kg)	ADL (ug/kg)		Units		ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg															
						RES	Q																												
1,1,1-Trichloroethane	NL	1,200,000	2,000	**		240,000		370		43		23	M	17		58		39	H	540		330		23	H	13		9.2		22		15			
1,1,2,2-Tetrachloroethane	NL	NL	NL	NL		170	U	94	U	4.7	U	4.8	U	4.6	U	4.8	U	4.9	U	7.6	U	90	U	100	U	5.1	U	5.1	U	5.1	U	5.2	U	4.9	U
1,1,2-Trichloroethane	310,000	1,800,000	20	**		170	U	94	U	4.7	U	4.8	U	4.6	U	4.8	U	4.9	U	7.6	U	90	U	100	U	5.1	U	5.1	U	5.1	U	5.2	U	4.9	U
1,1-Dichloroethane	7,800,000	1,300,000	23,000	**		8,100		94	U	6.8		3	Ja	4.6	U	9.7	H	5.8		7.6	U	110		100	U	2.7	Ja	5.1	U	5.1	U	5.2	U	4.9	U
1,1-Dichloroethene	700,000	1,500,000	60	**		1,300		94	U	4.7	U	4.8	U	4.6	U	4.8	U	4.9	U	7.6	U	90	U	100	U	5.1	U	5.1	U	5.1	U	5.2	U	4.9	U
1,2-Dichloroethane	7,000	400	20	**		170	U	94	U	4.7	U	4.8	U	4.6	U	4.8	U	4.9	U	7.6	U	90	U	100	U	5.1	U	5.1	U	5.1	U	5.2	U	4.9	U
1,2-Dichloroethene (total)	NL	NL	NL	NL		7,200		280		30		13		11		26		16		10		320		210		8.1		5.1	U	5.1	U	5.8		4.9	U
1,2-Dichloropropane	9,000	15,000	30	**		170	U	94	U	4.7	U	4.8	U	4.6	U	4.8	U	4.9	U	7.6	U	90	U	100	U	5.1	U	5.1	U	5.1	U	5.2	U	4.9	U
2-Butanone (MEK)	NL	NL	NL	NL		170	U	94	U	4.7	U	4.8	U	4.6	U	4.8	U	4.9	U	7.6	U	90	U	100	U	5.1	U	5.1	U	8.1		5.2	U	4.9	U
2-Hexanone	NL	NL	NL	NL		170	U	94	U	4.7	U	4.8	U	4.6	U	4.8	U	4.9	U	7.6	U	90	U	100	U	5.1	U	5.1	U	5.1	U	5.2	U	4.9	U
4-Methyl-2-pentanone (MIBK)	NL	NL	NL	NL		170	U	94	U	4.7	U	4.8	U	4.6	U	4.8	U	4.9	U	7.6	U	90	U	100	U	5.1	U	5.1	U	5.1	U	5.2	U	4.9	U
Acetone	7,800,000	100,000,000	16,000	**		170	U	94	U	14		4.8	U	50		4.8	U	4.9	U	7.6	U	90	U	100	U	5.1	U	5.1	U	48		5.2	U	11	
Benzene	12,000	800	30	**		42	U	23	U	4.7	U	4.8	U	4.6	U	4.8	U	4.9	U	7.6	U	22	U	25	U	5.1	U	5.1	U	5.1	U	5.2	U	4.9	U
Bromodichloromethane	10,000	3,000,000	600	**		170	U	94	U	4.7	U	4.8	U	4.6	U	4.8	U	4.9	U	7.6	U	90	U	100	U	5.1	U	5.1	U	5.1	U	5.2	U	4.9	U
Bromoform	81,000	53,000	800	**		170	U	94	U	4.7	U	4.8	U	4.6	U	4.8	U	4.9	U	7.6	U	90	U	100	U	5.1	U	5.1	U	5.1	U	5.2	U	4.9	U
Bromomethane	110,000	10,000	200	**		170	U	94	U	4.7	U	4.8	U	4.6	U	4.8	U	4.9	U	7.6	U	90	U	100	U	5.1	U	5.1	U	5.1	U	5.2	U	4.9	U
Carbon disulfide	7,800,000	720,000	32,000	**		170	U	94	U	4.7	U	4.8	U	4.6	U	4.8	U	4.9	U	7.6	U	90	U	100	U	5.1	U	5.1	U	5.1	U	5.2	U	4.9	U
Carbon tetrachloride	5,000	300	70	**		170	U	94	U	4.7	U	4.8	U	4.6	U	4.8	U	4.9	U	7.6	U	90	U	100	U	5.1	U	5.1	U	5.1	U	5.2	U	4.9	U
Chlorobenzene	1,600,000	130,000	1,000	**		170	U	94	U	4.7	U	4.8	U	4.6	U	4.8	U	4.9	U	7.6	U	90	U	100	U	5.1	U	5.1	U	5.1	U	5.2	U	4.9	U
Chloroethane	NL	NL	NL	NL		170	U	94	U	4.7	U	4.8	U	4.6	U	4.8	U	4.9	U	7.6	U	90	U	100	U	5.1	U	5.1	U	5.1	U	5.2	U	4.9	U
Chloroform	100,000	300	600	**		170	U	94	U	4.7	U	4.8	U	4.6	U	4.8	U	4.9	U	7.6	U	90	U	100	U	5.1	U	5.1	U	5.1	U	5.2	U	4.9	U
Chloromethane	NL	NL	NL	NL		170	U	94	U	4.7	U	4.8	U	4.6	U	4.8	U	4.9	U	7.6	U	90	U	100	U	5.1	U	5.1	U	5.1	U	5.2	U	4.9	U
cis-1,3-Dichloropropene	NL	NL	NL	NL		170	U	94	U	4.7	U	4.8	U	4.6	U	4.8	U	4.9	U	7.6	U	90	U	100	U	5.1	U	5.1	U	5.1	U	5.2	U	4.9	U
Ethylbenzene	7,800,000	400,000	13,000	**		42	U	23	U	4.7	U	4.8	U	4.6	U	4.8	U	4.9	U	7.6	U	22	U	25	U	5.1	U	5.1	U	5.1	U	5.2	U	4.9	U

TABLE 1.1  
SOIL ANALYTICAL RESULTS – OUTSIDE CONTAINER STORAGE AREA (OSA)  
(S1-S8) – VOCs, DRO/JP-4, and RCRA METALS  
AREA 9/10

SOUTHEAST ROCKFORD GROUNDWATER CONTAMINATION SUPERFUND SITE  
ROCKFORD, IL  
S3

Analyte	ROD - Preliminary Remediation Goals and/or Section 742.Table A: Tier 1 Soil Remediation Objectives for Residential Properties				Location Depth Sample Date	SB-S3 0-2'	SB-S3 2-4'	SB-S3 4-6'	SB-S3 6-8'	SB-S3 8-10'	SB-S3 10-12'	SB-S3 12-14'	SB-S3 14-16'	SB-S3 16-18'	SB-S3 18-20'	SB-S3 20-22'	SB-S3 22-24'	SB-S3 24-26'	SB-S3 26-28'	SB-S3 28-30'	SB-S3 30-32'																		
						10/28/2003	10/28/2003	10/28/2003	10/28/2003	10/28/2003	10/28/2003	10/28/2003	10/28/2003	10/28/2003	10/28/2003	10/28/2003	10/28/2003	10/28/2003	10/28/2003	10/28/2003																			
						ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg																				
RES	Q																																						
1,1,1-Trichloroethane	NL	1,200,000	2,000	**		680		4,800		170		8.1	H	12	H	55		58		29	H	42		480		110		8.6	H	12	H	8.8	M	9.6	H	9.7	H	19	M
1,1,2,2-Tetrachloroethane	NL	NL	NL	NL		81	U	120	U	4.4	U	4.9	U	5	U	4.7	U	4.9	U	5.3	U	4.9	U	91	U	5	U	5.3	U	5.3	U	4.9	U	4.5	U	5.1	U		
1,1,2-Trichloroethane	310,000	1,800,000	20	**		81	U	120	U	4.4	U	4.9	U	5	U	4.7	U	4.9	U	5.3	U	4.9	U	91	U	5	U	5.3	U	5.3	U	4.9	U	4.5	U	5.1	U		
1,1-Dichloroethane	7,800,000	1,300,000	23,000	**		100		1,300		58		4.9	U	5	U	10	M	8.2		5.3	U	3.7	Ja	120		36		5.3	U	5.3	U	5.3	U	4.9	U	4.5	U	5.1	U
1,1-Dichloroethene	700,000	1,500,000	60	**		81	U	120	U	4.4	U	4.9	U	5	U	4.7	U	4.9	U	5.3	U	4.9	U	91	U	5	U	5.3	U	5.3	U	4.9	U	4.5	U	5.1	U		
1,2-Dichloroethane	7,000	400	20	**		81	U	120	U	4.4	U	4.9	U	5	U	4.7	U	4.9	U	5.3	U	4.9	U	91	U	5	U	5.3	U	5.3	U	4.9	U	4.5	U	5.1	U		
1,2-Dichloroethene (total)	NL	NL	NL	NL		81	U	750		40		4.9	U	5	U	9.2		8.6		2.7	Ja	4	Ja	110		27		5.3	U	5.3	U	5.3	U	4.9	U	4.5	U	5.1	U
1,2-Dichloropropane	9,000	15,000	30	**		81	U	120	U	4.4	U	4.9	U	5	U	4.7	U	4.9	U	5.3	U	4.9	U	91	U	5	U	5.3	U	5.3	U	4.9	U	4.5	U	5.1	U		
2-Butanone (MEK)	NL	NL	NL	NL		81	U	120	U	4.4	U	4.9	U	5	U	4.7	U	4.9	U	5.3	U	4.9	U	91	U	5	U	5.4		5.3	U	5.3	U	4.9	U	4.5	U	5.1	U
2-Hexanone	NL	NL	NL	NL		81	U	120	U	4.4	U	4.9	U	5	U	4.7	U	4.9	U	5.3	U	4.9	U	91	U	5	U	5.3	U	5.3	U	4.9	U	4.5	U	5.1	U		
4-Methyl-2-pentanone (MIBK)	NL	NL	NL	NL		81	U	120	U	4.4	U	4.9	U	5	U	4.7	U	4.9	U	5.3	U	4.9	U	91	U	5	U	5.3	U	5.3	U	4.9	U	4.5	U	5.1	U		
Acetone	7,800,000	100,000,000	16,000	**		81	U	120	U	4.4	U	4.9	U	5	U	4.7	U	4.9	U	5.3	U	4.9	U	91	U	5	U	5.3	U	5.8		5.3	U	4.9	U	4.5	U	5.1	U
Benzene	12,000	800	30	**		20	U	30	U	4.4	U	4.9	U	5	U	4.7	U	4.9	U	5.3	U	4.9	U	23	U	4	Ja	5.3	U	5.3	U	4.9	U	4.5	U	5.1	U		
Bromodichloromethane	10,000	3,000,000	600	**		81	U	120	U	4.4	U	4.9	U	5	U	4.7	U	4.9	U	5.3	U	4.9	U	91	U	5	U	5.3	U	5.3	U	4.9	U	4.5	U	5.1	U		
Bromoform	81,000	53,000	800	**		81	U	120	U	4.4	U	4.9	U	5	U	4.7	U	4.9	U	5.3	U	4.9	U	91	U	5	U	5.3	U	5.3	U	4.9	U	4.5	U	5.1	U		
Bromomethane	110,000	10,000	200	**		81	U	120	U	4.4	U	4.9	U	5	U	4.7	U	4.9	U	5.3	U	4.9	U	91	U	5	U	5.3	U	5.3	U	4.9	U	4.5	U	5.1	U		
Carbon disulfide	7,800,000	720,000	32,000	**		81	U	120	U	4.4	U	4.9	U	5	U	4.7	U	4.9	U	5.3	U	4.9	U	91	U	5	U	5.3	U	5.3	U	4.9	U	4.5	U	5.1	U		
Carbon tetrachloride	5,000	300	70	**		81	U	120	U	4.4	U	4.9	U	5	U	4.7	U	4.9	U	5.3	U	4.9	U	91	U	5	U	5.3	U	5.3	U	4.9	U	4.5	U	5.1	U		
Chlorobenzene	1,600,000	130,000	1,000	**		81	U	120	U	4.4	U	4.9	U	5	U	4.7	U	4.9	U	5.3	U	4.9	U	91	U	5	U	5.3	U	5.3	U	4.9	U	4.5	U	5.1	U		
Chloroethane	NL	NL	NL	NL		81	U	120	U	4.4	U	4.9	U	5	U	4.7	U	4.9	U	5.3	U	4.9	U	91	U	5	U	5.3	U	5.3	U	4.9	U	4.5	U	5.1	U		
Chloroform	100,000	300	600	**		81	U	120	U	4.4	U	4.9	U	5	U	4.7	U	4.9	U	5.3	U	4.9	U	91	U	5	U	5.3	U	5.3	U	4.9	U	4.5	U	5.1	U		
Chloromethane	NL	NL	NL	NL		81	U	120	U	4.4	U	4.9	U	5	U	4.7	U	4.9	U	5.3	U	4.9	U	91	U	5	U	5.3	U	5.3	U	4.9	U	4.5	U				

**TABLE 1.1**  
**SOIL ANALYTICAL RESULTS – OUTSIDE CONTAINER STORAGE AREA (OSA)**  
**(S1-S8) – VOCs, DRO/JP-4, and RCRA METALS**  
**AREA 9/10**  
**SOUTHEAST ROCKFORD GROUNDWATER CONTAMINATION SUPERFUND SITE**  
**ROCKFORD, IL**  
**S4**

Analyte	ROD - Preliminary Remediation Goals and/or Section 742.Table A: Tier 1 Soil Remediation Objectives for Residential Properties				Location Depth Sample Date	SB-S4 0-2'	SB-S4 2-4'	SB-S4 4-6'	SB-S4 6-8'	SB-S4 8-10'	SB-S4 10-12'	SB-S4 12-14'	SB-S4 16-18'	SB-S4 18-20'	SBD-S4 18-20'	SB-S4 20-22'	SB-S4 22-24'	SB-S4 24-26'	SB-S4 26-28'	SB-S4 28-30'	SB-S4 30-32'																		
	Soil Ingestion (ug/kg)	Soil Inhalation (ug/kg)	Soil Component of Groundwater Class 1 (ug/kg)	ADL (ug/kg)		Units	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg																				
						RES	Q																																
1,1,1-Trichloroethane	NL	1,200,000	2,000	**		1,200	1,500	440	130	18	22	45	47	710	600	890	11	7.9	9.4	25	19																		
1,1,2,2-Tetrachloroethane	NL	NL	NL	NL		100	U	92	U	9.6	U	4.4	U	5.3	U	5.1	U	5.7	U	100	U	93	U	85	U	5.3	U	5.2	U	4.9	U	5	U	4.5	U				
1,1,2-Trichloroethane	310,000	1,800,000	20	**		100	U	92	U	8.3	Ja	4.4	U	5.3	U	5.1	U	5.1	U	5.7	U	100	U	93	U	85	U	5.3	U	5.2	U	4.9	U	5	U	4.5	U		
1,1-Dichloroethane	7,800,000	1,300,000	23,000	**		100	U	170		310		32		5.3	U	5.1	U	7.3		5.7	U	130		100		180		5.3	U	5.2	U	4.9	U	5	U	3.4	Ja		
1,1-Dichloroethene	700,000	1,500,000	60	**		100	U	92	U	9.6	U	4.4	U	5.3	U	5.1	U	5.1	U	5.7	U	100	U	93	U	85	U	5.3	U	5.2	U	4.9	U	5	U	4.5	U		
1,2-Dichloroethane	7,000	400	20	**		100	U	92	U	9.6	U	4.4	U	5.3	U	5.1	U	5.1	U	5.7	U	100	U	93	U	85	U	5.3	U	5.2	U	4.9	U	5	U	4.5	U		
1,2-Dichloroethene (total)	NL	NL	NL	NL		300	450	200	78	5.1	Ja	7.1		17		10		310	240	380	3.4	Ja	5.2	U	4.9	U	5.1		6.2										
1,2-Dichloropropane	9,000	15,000	30	**		100	U	92	U	9.6	U	4.4	U	5.3	U	5.1	U	5.1	U	5.7	U	100	U	93	U	85	U	5.3	U	5.2	U	4.9	U	5	U	4.5	U		
2-Butanone (MEK)	NL	NL	NL	NL		100	U	92	U	9.6	U	4.4	U	5.3	U	5.1	U	5.1	U	5.7	U	100	U	93	U	85	U	5.3	U	5.2	U	4.9	U	5	U	4.5	U		
2-Hexanone	NL	NL	NL	NL		100	U	92	U	9.6	U	4.4	U	5.3	U	5.1	U	5.1	U	5.7	U	100	U	93	U	85	U	5.3	U	5.2	U	4.9	U	5	U	4.5	U		
4-Methyl-2-pentanone (MIBK)	NL	NL	NL	NL		100	U	92	U	9.6	U	4.4	U	5.3	U	5.1	U	5.1	U	5.7	U	100	U	93	U	85	U	5.3	U	5.2	U	4.9	U	5	U	4.5	U		
Acetone	7,800,000	100,000,000	16,000	**		100	U	92	U	9.6	U	4.4	U	5.3	U	5.1	U	5.1	U	5.7	U	100	U	93	U	85	U	5.3	U	5.2	U	4.9	U	17		4.5	U		
Benzene	12,000	800	30	**		25	U	23	U	9.6	U	4.4	U	5.3	U	5.1	U	5.1	U	5.7	U	25	U	23	U	21	U	5.3	U	5.2	U	4.9	U	5	U	4.5	U		
Bromodichloromethane	10,000	3,000,000	600	**		100	U	92	U	9.6	U	4.4	U	5.3	U	5.1	U	5.1	U	5.7	U	100	U	93	U	85	U	5.3	U	5.2	U	4.9	U	5	U	4.5	U		
Bromoform	81,000	53,000	800	**		100	U	92	U	9.6	U	4.4	U	5.3	U	5.1	U	5.1	U	5.7	U	100	U	93	U	85	U	5.3	U	5.2	U	4.9	U	5	U	4.5	U		
Bromomethane	110,000	10,000	200	**		100	U	92	U	9.6	U	4.4	U	5.3	U	5.1	U	5.1	U	5.7	U	100	U	93	U	85	U	5.3	U	5.2	U	4.9	U	5	U	4.5	U		
Carbon disulfide	7,800,000	720,000	32,000	**		100	U	92	U	9.6	U	4.4	U	5.3	U	5.1	U	5.1	U	5.7	U	100	U	93	U	85	U	5.3	U	5.2	U	4.9	U	5	U	4.5	U		
Carbon tetrachloride	5,000	300	70	**		100	U	92	U	9.6	U	4.4	U	5.3	U	5.1	U	5.1	U	5.7	U	100	U	93	U	85	U	5.3	U	5.2	U	4.9	U	5	U	4.5	U		
Chlorobenzene	1,600,000	130,000	1,000	**		100	U	92	U	9.6	U	4.4	U	5.3	U	5.1	U	5.1	U	5.7	U	100	U	93	U	85	U	5.3	U	5.2	U	4.9	U	5	U	4.5	U		
Chloroethane	NL	NL	NL	NL		100	U	92	U	9.6	U	4.4	U	5.3	U	5.1	U	5.1	U	5.7	U	100	U	93	U	85	U	5.3	U	5.2	U	4.9	U	5	U	4.5	U		
Chloroform	100,000	300	600	**		100	U	92	U	9.6	U	4.4	U	5.3	U	5.1	U	5.1	U	5.7	U	100	U	93	U	85	U	5.3	U	5.2	U	4.9	U	5	U	4.5	U		
Chloromethane	NL	NL	NL	NL		100	U	92	U	9.6	U	4.4	U	5.3	U	5.1	U	5.1	U	5.7	U	100	U	93	U	85	U	5.3	U	5.2	U	4.9	U	5	U	4.5	U		
cis-1,3-Dichloropropene	NL	NL	NL	NL		100	U	92	U	9.6	U	4.4	U	5.3	U	5.1	U	5.1	U	5.7	U	100	U	93	U	85	U	5.3	U	5.2	U	4.9	U	5	U	4.5	U		
Ethylbenzene	7,800,000	400,000																																					

**TABLE 1.1**  
**SOIL ANALYTICAL RESULTS – OUTSIDE CONTAINER STORAGE AREA (OSA)**  
**(S1-S8) – VOCs, DRO/JP-4, and RCRA METALS**  
**AREA 9/10**  
**SOUTHEAST ROCKFORD GROUNDWATER CONTAMINATION SUPERFUND SITE**  
**ROCKFORD, IL**  
**S5**

Analyte	ROD - Preliminary Remediation Goals and/or Section 742.Table A: Tier 1 Soil Remediation Objectives for Residential Properties				Location Depth Sample Date	SB-S5 2-4'	SB-S5 4-6'	SB-S5 6-8'	SB-S5 8-10'	SB-S5 10-12'	SB-S5 12-14'	SB-S5 14-16'	SB-S5 16-18'	SB-S5 18-20'	SB-S5 20-22'	SB-S5 22-24'	SB-S5 24-26'	SB-S5 26-28'	SB-S5 28-30'	SB-S5 30-32'
	Soil Ingestion (ug/kg)	Soil Inhalation (ug/kg)	Soil Component of Groundwater Class 1 (ug/kg)	ADL (ug/kg)		Units		ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	
						RES	Q													
1,1,1-Trichloroethane	NL	1,200,000	2,000	**		230		860		130		18	H	100	U	23	H	35		
1,1,2,2-Tetrachloroethane	NL	NL	NL	NL		90	U	85	U	77	U	5	U	100	U	4.5	U	4.9	U	
1,1,2-Trichloroethane	310,000	1,800,000	20	**		90	U	85	U	77	U	5	U	100	U	4.5	U	5.2	U	
1,1-Dichloroethane	7,800,000	1,300,000	23,000	**		90	U	85	U	77	U	5	U	100	U	4.5	U	4.9	U	
1,1-Dichloroethene	700,000	1,500,000	60	**		90	U	85	U	77	U	5	U	100	U	4.5	U	4.9	U	
1,2-Dichloroethane	7,000	400	20	**		90	U	85	U	77	U	5	U	100	U	4.5	U	4.9	U	
1,2-Dichloroethene (total)	NL	NL	NL	NL		90	U	97		77	U	4.3	Ja	100	U	7.1		6.9		
1,2-Dichloropropane	9,000	15,000	30	**		90	U	85	U	77	U	5	U	100	U	4.5	U	4.9	U	
2-Butanone (MEK)	NL	NL	NL	NL		90	U	85	U	77	U	5	U	100	U	4.5	U	5.2	U	
2-Hexanone	NL	NL	NL	NL		90	U	85	U	77	U	5	U	100	U	4.5	U	4.9	U	
4-Methyl-2-pentanone (MIBK)	NL	NL	NL	NL		90	U	85	U	77	U	5	U	100	U	4.5	U	4.9	U	
Acetone	7,800,000	100,000,000	16,000	**		90	U	85	U	77	U	5	U	100	U	4.5	U	4.9	U	
Benzene	12,000	800	30	**		23	U	21	U	19	U	5	U	25	U	4.5	U	4.9	U	
Bromodichloromethane	10,000	3,000,000	600	**		90	U	85	U	77	U	5	U	100	U	4.5	U	4.9	U	
Bromoform	81,000	53,000	800	**		90	U	85	U	77	U	5	U	100	U	4.5	U	4.9	U	
Bromomethane	110,000	10,000	200	**		90	U	85	U	77	U	5	U	100	U	4.5	U	4.9	U	
Carbon disulfide	7,800,000	720,000	32,000	**		90	U	85	U	77	U	5	U	100	U	4.5	U	4.9	U	
Carbon tetrachloride	5,000	300	70	**		90	U	85	U	77	U	5	U	100	U	4.5	U	4.9	U	
Chlorobenzene	1,600,000	130,000	1,000	**		90	U	85	U	77	U	5	U	100	U	4.5	U	4.9	U	
Chloroethane	NL	NL	NL	NL		90	U	85	U	77	U	5	U	100	U	4.5	U	4.9	U	
Chloroform	100,000	300	600	**		90	U	85	U	77	U	5	U	100	U	4.5	U	4.9	U	
Chloromethane	NL	NL	NL	NL		90	U	85	U	77	U	5	U	100	U	4.5	U	4.9	U	
cis-1,3-Dichloropropene	NL	NL	NL	NL		90	U	85	U	77	U	5	U	100	U	4.5	U	4.9	U	
Ethylbenzene	7,800,000	400,000	13,000	**		23	U	21	U	19	U	5	U	25	U	4.5	U	4.9	U	
Methylene chloride	85,000	13,000	20	**		90	U	85	U	77	U	13		100	U	5.5		4.9		
Styrene	16,000,000	1,500,000	4,000	**		90	U	85	U	77	U	5	U	100	U	4.5	U	4.9	U	
Tetrachloroethene	12,000	11,000	60	**		1,700		8,100		2,500		930		1,600		100		120		
Toluene	16,000,000	650,000	12,000	**		23	U	21	U	19	U	5	U	25	U	4.5	U	4.9	U	
trans-1,3-Dichloropropene	NL	NL	NL	NL		90	U	85	U	77	U	5	U	100	U	4.5	U	4.9	U	
Trichloroethene	58,000	5,000	60	**		90	U	190		77	U	6.7		100	U	5.7		5.6		
Vinyl chloride	460	280	10	**		90	U	85	U	77	U	5	U	100	U	4.5	U	4.9	U	
Xylenes (total)	160,000,000	320,000	150,000	**		68	U	64	U	57	U	5	U	76	U	4.5	U	4.9	U	
DRO/JP-4						5,100	U	4,900	U	4,400	U	4,300	U	4,300	Ua	4,200	U	4,300	U	
						ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		ug/L		
Arsenic,TCLP						50		50	U	50	U	50	U	50	U	50	U	50	U	
Barium,TCLP						2,000		930	B	930	B	910	B	680	B	530	B	430	B	
Cadmium,TCLP						5		3900		3	B	7		120		310		58		
Chromium,TCLP						100		50	U	50	U	50	U	50	U	50	U	50	U	
Lead,TCLP						7.5		7.5	U	22		12		43		6.3	B	7.5	U	
Mercury,TCLP						2		2	U	2	U	2		U		2	U	2	U	
Selenium,TCLP						50		50	U	50	U	50	U	50	U	50	U	50	U	
Silver,TCLP						50		50	U	50	U	50	U	50	U	50	U	50	U	

See endnotes for analytical qualifier explanation.

**TABLE 1.1**  
**SOIL ANALYTICAL RESULTS – OUTSIDE CONTAINER STORAGE AREA (OSA)**  
**(S1-S8) – VOCs, DRO/JP-4, and RCRA METALS**  
**AREA 9/10**  
**SOUTHEAST ROCKFORD GROUNDWATER CONTAMINATION SUPERFUND SITE**  
**ROCKFORD, IL**  
**S6**

Analyte	ROD - Preliminary Remediation Goals and/or Section 742.Table A: Tier 1 Soil Remediation Objectives for Residential Properties				Location Depth Sample Date	SB-S6 0-2'	SB-S6 2-4'	SB-S6 4-6'	SB-S6 6-8'	SB-S6 8-10'	SB-S6 10-12'	SB-S6 12-14'	SB-S6 14-16'	SB-S6 16-18'	SB-S6 18-20'	SB-S6 20-22'	SB-S6 22-24'	SB-S6 24-26'	SB-S6 26-28'	SB-S6 28-30'	SB-S6 30-32'						
	Soil Ingestion (ug/kg)	Soil Inhalation (ug/kg)	Soil Component of Groundwater Class 1 (ug/kg)	ADL (ug/kg)		Units	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg							
						RES	Q	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg							
1,1,1-Trichloroethane	NL	1,200,000	2,000	**		11	67	77	8	7.4	15	18	11	21	12	7.5	7.9	8.6	13	9.9	9.3						
1,1,2,2-Tetrachloroethane	NL	NL	NL	NL		5	U	4.7	U	4.4	U	5.2	U	5	U	4.4	U	5.1	U	5.6	U						
1,1,2-Trichloroethane	310,000	1,800,000	20	**		5	U	4.7	U	4.4	U	5.2	U	5	U	4.9	U	4.4	U	5.1	U						
1,1-Dichloroethane	7,800,000	1,300,000	23,000	**		5	U	8.9	18	5.2	U	5	U	4.9	U	4.2	Ja	5.1	U	5	U						
1,1-Dichloroethene	700,000	1,500,000	60	**		5	U	4.7	U	4.4	U	5.2	U	5	U	4.9	U	4.4	U	5.1	U						
1,2-Dichloroethane	7,000	400	20	**		5	U	4.7	U	4.4	U	5.2	U	5	U	4.9	U	4.4	U	5.1	U						
1,2-Dichloroethene (total)	NL	NL	NL	NL		5	U	4.7	U	11	5.2	U	5	U	4.9	U	3.3	Ja	5.1	U	5	U					
1,2-Dichloropropane	9,000	15,000	30	**		5	U	4.7	U	4.4	U	5.2	U	5	U	4.9	U	4.4	U	5.1	U						
2-Butanone (MEK)	NL	NL	NL	NL		5	U	4.7	U	4.4	U	5.2	U	5.7		6.1	H	6.9	5.1	U	6.8						
2-Hexanone	NL	NL	NL	NL		5	U	4.7	U*	4.4	U	5.2	U	5	U	4.9	U	4.4	U	5.1	U	5	U				
4-Methyl-2-pentanone (MIBK)	NL	NL	NL	NL		5	U	4.7	U*	4.4	U	5.2	U	5	U	4.9	U	4.4	U	5.1	U	5	U				
Acetone	7,800,000	100,000,000	16,000	**		49	4.7	U	59	43	34	23	34	19	27	28	16	15	24	26	22	25					
Benzene	12,000	800	30	**		5	U	4.7	U	4.4	U	5.2	U	5	U	3.2	Ja	4.4	U	3.4	Ja	3	Ja				
Bromodichloromethane	10,000	3,000,000	600	**		5	U	4.7	U	4.4	U	5.2	U	5	U	4.9	U	4.4	U	5.1	U	5	U				
Bromoform	81,000	53,000	800	**		5	U	4.7	U*	4.4	U	5.2	U	5	U	4.9	U	4.4	U	5.1	U	5	U				
Bromomethane	110,000	10,000	200	**		5	U	4.7	U*	4.4	U	5.2	U	5	U	4.9	U	4.4	U	5.1	U	5	U				
Carbon disulfide	7,800,000	720,000	32,000	**		5	U	9.4		4.4	U	5.2	U	5	U	4.9	U	4.4	U	5.1	U	5	U				
Carbon tetrachloride	5,000	300	70	**		5	U	4.7	U	4.4	U	5.2	U	5	U	4.9	U	4.4	U	5.1	U	5	U				
Chlorobenzene	1,600,000	130,000	1,000	**		5	U	4.7	U	4.4	U	5.2	U	5	U	4.9	U	4.4	U	5.1	U	5	U				
Chloroethane	NL	NL	NL	NL		5	U	4.7	U	4.4	U	5.2	U	5	U	4.9	U	4.4	U	5.1	U	5	U				
Chloroform	100,000	300	600	**		5	U	4.7	U	4.4	U	5.2	U	5	U	4.9	U	4.4	U	5.1	U	5	U				
Chloromethane	NL	NL	NL	NL		5	U	4.7	U	4.4	U	5.2	U	5	U	4.9	U	4.4	U	5.1	U	5	U				
cis-1,3-Dichloropropene	NL	NL	NL	NL		5	U	4.7	U	4.4	U	5.2	U	5	U	4.9	U	4.4	U	5.1	U	5	U				
Ethylbenzene	7,800,000	400,000	13,000	**		5	U	4.7	U	4.4	U	5.2	U	5	U	4.9	U	4.4	U	5.1	U	5	U				
Methylene chloride	85,000	13,000	20	**		5	U	4.7	U	4.4	U	5.2	U	5	U	4.9	U	4.4	U	5.1	U	5	U				
Styrene	16,000,000	1,500,000	4,000	**		5	U	4.7	U	4.4	U	5.2	U	5	U	4.9	U	4.4	U	5.1	U	5	U				
Tetrachloroethene	12,000	11,000	60	**		44	140	80	6.8	13	21	21	21	20	41	24	20	19	21	30	19	22					
Toluene	16,000,000	650,000	12,000	**		5	U	4.7	U	4.4	U	5.2	U	7.9		8.9	7.1	9.2	8.1	10	9.8	8.6	7.8	8.2	6.5	8.3	
trans-1,3-Dichloropropene	NL	NL	NL	NL		5	U	4.7	U	4.4	U	5.2	U	5	U	4.9	U	4.4	U	5.1	U	5	U	5.3	U	5	U
Trichloroethene	58,000	5,000	60	**		5	U	4.7	U	3.8	Ja	5.2	U	5	U	4.9	U	4.4	U	5.1	U	5	U	5.6	U	5	U
Vinyl chloride	460	280	10	**		5	U	4.7	U	4.4	U	5.2	U	5	U	4.9	U	4.4	U	5.1	U	5	U	5.6	U	5	U
Xylenes (total)	160,000,000	320,000	150,000	**		5	U	4.7	U	4.4	U	5.2	U	5	U	4.9	U	4.4	U	5.1	U	5	U	5.3	U	5	U
DRO/JP-4						5,000	U*	5,000	U*	4,600	U*	4,400	U*	4,300	U*	4,300	U*	4,200	U*	4,700	U*	4,300	U*	4,400	U*	4,300	U*
Arsenic,TCLP						50		U	50	U	50	U															

**TABLE 1.1**  
**SOIL ANALYTICAL RESULTS – OUTSIDE CONTAINER STORAGE AREA (OSA)**  
**(S1-S8) – VOCs, DRO/JP-4, and RCRA METALS**  
**AREA 9/10**  
**SOUTHEAST ROCKFORD GROUNDWATER CONTAMINATION SUPERFUND SITE**  
**ROCKFORD, IL**  
**S7**

Analyte	ROD - Preliminary Remediation Goals and/or Section 742.Table A: Tier 1 Soil Remediation Objectives for Residential Properties				Location Depth Sample Date	SB-S7 2-4'	SBD-S7 2-4'	SB-S7 4-6'	SB-S7 6-8'	SB-S7 8-10'	SB-S7 10-12'	SB-S7 12-14'	SB-S7 14-16'	SB-S7 16-18'	SB-S7 18-20'	SB-S7 20-22'	SB-S7 22-24'	SB-S7 24-26'	SB-S7 26-28'	SB-S7 28-30'	SB-S7 30-32'																		
	Soil Ingestion (ug/kg)	Soil Inhalation (ug/kg)	Soil Component of Groundwater Class 1 (ug/kg)	ADL (ug/kg)		Units		10/30/2003	10/30/2003	10/30/2003	10/30/2003	10/30/2003	10/30/2003	10/30/2003	10/30/2003	10/30/2003	10/30/2003	10/30/2003	10/30/2003	10/30/2003																			
						ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg																				
1,1,1-Trichloroethane	NL	1,200,000	2,000	**		12,000	4400	130	15	14	50	14	6.8	11	210	6.8	18	H	7.2	10	7.7	H	14	H	19	H													
1,1,2,2-Tetrachloroethane	NL	NL	NL	NL		95	U	110	U	5.8	U	4.7	U	5.3	U	5	U	5.2	U	5.3	U	5.2	U	5.4	U	5.3	U	5.2	U										
1,1,2-Trichloroethane	310,000	1,800,000	20	**		95	U	110	U	5.8	U	4.7	U	5.3	U	5	U	5.2	U	5.3	U	5.4	U	5.2	U	5.3	U	5.2	U										
1,1-Dichloroethane	7,800,000	1,300,000	23,000	**		370		130	20		4.7	U	5.3	U	5.4		5	U	5.2	U	5.3	U	48		5.2	U	5.5	U	5.3	U	5.2	U							
1,1-Dichloroethene	700,000	1,500,000	60	**		95	U	110	U	5.8	U	4.7	U	5.3	U	5	U	5.2	U	5.3	U	5.4	U	5.2	U	5.5	U	5.2	U	5.3	U	5.2	U						
1,2-Dichloroethane	7,000	400	20	**		95	U	110	U	5.8	U*	4.7	U*	5.3	U*	5	U	5.2	U*	5.3	U*	5.4	U	5.2	U*	5.5	U	5.3	U*	5.4	U	5.3	U	5.2	U				
1,2-Dichloroethene (total)	NL	NL	NL	NL		220		94	J	23		3.3	Ja	5.3	U	6.3		5	U	5.2	U	5.3	U	52		5.2	U	5.5	U	5.3	U	5.2	U	5.4	U	5.3	U	3.8	Ja
1,2-Dichloropropane	9,000	15,000	30	**		95	U	110	U	5.8	U	4.7	U	5.3	U	5	U	5.2	U	5.3	U	5.4	U	5.2	U	5.5	U	5.3	U	5.2	U	5.4	U	5.3	U	5.2	U		
2-Butanone (MEK)	NL	NL	NL	NL		95	U	110	U	5.8	U*	4.7	U*	5.3	U*	5	U	5.2	U*	5.3	U*	5.4	U	5.2	U*	5.5	U	5.3	U*	5.2	U	5.4	U	5.3	U	5.2	U		
2-Hexanone	NL	NL	NL	NL		95	U	110	U	5.8	U	4.7	U	5.3	U	5	U*	5.2	U	5.3	U	5.4	U*	5.2	U	5.5	U*	5.3	U	5.2	U	5.4	U	5.3	U*	5.2	U*		
4-Methyl-2-pentanone (MIBK)	NL	NL	NL	NL		95	U	110	U	5.8	U*	4.7	U*	5.3	U*	5	U*	5.2	U*	5.3	U*	5.4	U*	5.2	U*	5.5	U*	4.3	U*	5.2	U*	5.4	U*	5.3	U*	5.2	U*		
Acetone	7,800,000	100,000,000	16,000	**		95	U	110	U	71	*	44	*	36	*	25	*	10		5.2	U*	5.3	U*	5.4	U	18	*	13	*	14	*	20	*	14	*	17	20		
Benzene	12,000	800	30	**		24	U	29	U	5.8	U	4.7	U	5.3	U	5	U	5.2	U	5.3	U	5.2	Ja	5.2	U	5.5	U	3.4	U	5.2	U	5.4	U	5.3	U	5.2	U		
Bromodichloromethane	10,000	3,000,000	600	**		95	U	110	U	5.8	U*	4.7	U*	5.3	U*	5	U	5.2	U*	5.3	U*	5.4	U	5.2	U*	5.5	U	5.3	U*	5.2	U	5.4	U	5.3	U	5.2	U		
Bromoform	81,000	53,000	800	**		95	U	110	U	5.8	U	4.7	U	5.3	U	5	U*	5.2	U	5.3	U	5.4	U*	5.2	U	5.5	U*	5.3	U	5.2	U	5.4	U*	5.3	U*	5.2	U*		
Bromomethane	110,000	10,000	200	**		95	U	110	U	5.8	U	4.7	U	5.3	U	5	U*	5.2	U	5.3	U	5.4	U*	5.2	U	5.5	U*	5.3	U	5.2	U	5.4	U*	5.3	U*	5.2	U*		
Carbon disulfide	7,800,000	720,000	32,000	**		95	U	110	U	5.8	U	4.7	U	5.3	U	5	U	5.2	U	5.3	U	5.4	U	5.2	U	5.5	U	5.3	U	5.2	U	5.4	U	5.3	U	5.2	U		
Carbon tetrachloride	5,000	300	70	**		95	U	110	U	5.8	U	4.7	U	5.3	U	5	U	5.2	U	5.3	U	5.4	U	5.2	U	5.5	U	5.3	U	5.2	U	5.4	U	5.3	U	5.2	U		
Chlorobenzene	1,600,000	130,000	1,000	**		95	U	110	U	5.8	U	4.7	U	5.3	U	5	U	5.2	U	5.3	U	5.4	U	5.2	U	5.5	U	5.3	U	5.2	U	5.4	U	5.3	U	5.2	U		
Chloroethane	NL	NL	NL	NL		95	U	110	U	5.8	U*	4.7	U*	5.3	U*	5	U	5.2	U*	5.3	U*	5.4	U	5.2	U*	5.5	U	5.3	U*	5.2	U	5.4	U	5.3	U	5.2	U		
Chloroform	100,000	300	600	**		95	U	110	U	5.8	U*	4.7	U*	5.3	U*	5	U	5.2	U*	5.3	U*	5.4	U	5.2	U*	5.5	U	5.3	U*	5.2	U	5.4	U	5.3	U	5.2	U		
Chloromethane	NL	NL	NL	NL		95	U	110	U	5.8	U	4.7	U	5.3	U	5	U	5.2	U	5.3	U	5.4	U	5.2	U	5.5	U	5.3	U	5.2	U	5.4	U	5.3	U	5.2	U		
cis-1,3-Dichloropropene	NL																																						

TABLE 1.1  
SOIL ANALYTICAL RESULTS – OUTSIDE CONTAINER STORAGE AREA (OSA)  
(S1-S8) – VOCs, DRO/JP-4, and RCRA METALS

AREA 9/10  
SOUTHEAST ROCKFORD GROUNDWATER CONTAMINATION SUPERFUND SITE  
ROCKFORD, IL  
S8

Analyte	ROD - Preliminary Remediation Goals and/or Section 742.Table A: Tier 1 Soil Remediation Objectives for Residential Properties				Location Depth Sample Date	SB-S8	SBD-S8	SB-S8	SB-S8	SB-S8	SB-S8	SB-S8	SB-S8	SB-S8																									
	Soil Ingestion (ug/kg)	Soil Inhalation (ug/kg)	Soil Component of Groundwater Class 1 (ug/kg)	ADL (ug/kg)		10/30/2003	10/30/2003	10/30/2003	10/30/2003	10/30/2003	10/30/2003	10/30/2003	10/30/2003	10/30/2003	10/30/2003	10/30/2003	10/30/2003	10/30/2003	10/30/2003	10/30/2003																			
						Units	ug/kg																																
1,1,1-Trichloroethane	NL	1,200,000	2,000	**		500		120		31		10		7.8		24		8.3		12		48		110		16		23		6.2		26		7.8		8.9			
1,1,2,2-Tetrachloroethane	NL	NL	NL	NL		92	U	4.7	U	4.5	U	5.1	U	4.8	U	4.3	U	4.9	U	5	U	5.2	U	5.5	U	4.6	U	4.1	U	5.2	U	5.3	U	4.9	U	5.1	U	5.2	U
1,1,2-Trichloroethane	310,000	1,800,000	20	**		92	U	4.7	U	4.5	U	5.1	U	4.8	U	4.3	U	4.9	U	5	U	5.2	U	5.5	U	4.6	U	4.1	U	5.2	U	5.3	U	4.9	U	5.1	U	5.2	U
1,1-Dichloroethane	7,800,000	1,300,000	23,000	**		92	U	13		3.9	Ja	5.1	U	4.8	U	4.3	U	4.9	U	5	U	5.2	U	5.5	U	4.6	U	3.9	Ja	5.2	U	5.3	U	2.9	Ja	5.1	U	5.2	U
1,1-Dichloroethene	700,000	1,500,000	60	**		92	U	4.7	U	4.5	U	5.1	U	4.8	U	4.3	U	4.9	U	5	U	5.2	U	5.5	U	4.6	U	4.1	U	5.2	U	5.3	U	4.9	U	5.1	U	5.2	U
1,2-Dichloroethane	7,000	400	20	**		92	U	4.7	U	4.5	U	5.1	U	4.8	U	4.3	U	4.9	U	5	U	5.2	U	5.5	U	4.6	U	4.1	U	5.2	U	5.3	U	4.9	U	5.1	U	5.2	U
1,2-Dichloroethene (total)	NL	NL	NL	NL		92	U	21		6.8		5.1	U	4.8	U	4.5		4.9	U	5	U	5.2	U	13		28		7		3.2	Ja	5.3	U	6		5.1	U	5.2	U
1,2-Dichloropropane	9,000	15,000	30	**		92	U	4.7	U	4.5	U	5.1	U	4.8	U	4.3	U	4.9	U	5	U	5.2	U	5.5	U	4.6	U	4.1	U	5.2	U	5.3	U	4.9	U	5.1	U	5.2	U
2-Butanone (MEK)	NL	NL	NL	NL		92	U	5.3		4.8		5.1	U	4.8	U	4.3	U	4.9	U	5	U	5.2	U	5.5	U	4.6	U	4.1	U	5.2	U	5.3	U	4.9	U	5.1	U	5.2	U
2-Hexanone	NL	NL	NL	NL		92	U	4.7	U	4.5	U	5.1	U	4.8	U	4.3	U	4.9	U	5	U	5.2	U	5.5	U	4.6	U	4.1	U	5.2	U	5.3	U	4.9	U	5.1	U	5.2	U
4-Methyl-2-pentanone (MIBK)	NL	NL	NL	NL		92	U	4.7	U	4.5	U	5.1	U	4.8	U	4.3	U	4.9	U	5	U	5.2	U	5.5	U	4.6	U	4.1	U	5.2	U	5.3	U	4.9	U	5.1	U	5.2	U
Acetone	7,800,000	100,000,000	16,000	**		92	U	52		30		5.1	U	4.8	U	4.3	U	4.9	U	5	U	5.2	U	5.5	U	4.6	U	4.1	U	5.2	U	5.3	U	4.9	U	5.1	U	5.2	U
Benzene	12,000	800	30	**		23	U	4.7	U	4.5	U	5.1	U	4.8	U	4.3	U	4.9	U	5	U	5.2	U	5.5	U	3.0	J	4.1	U	5.2	U	5.3	U	4.9	U	5.1	U	5.2	U
Bromodichloromethane	10,000	3,000,000	600	**		92	U	4.7	U	4.5	U	5.1	U	4.8	U	4.3	U	4.9	U	5	U	5.2	U	5.5	U	4.6	U	4.1	U	5.2	U	5.3	U	4.9	U	5.1	U	5.2	U
Bromoform	81,000	53,000	800	**		92	U	4.7	U	4.5	U	5.1	U	4.8	U	4.3	U	4.9	U	5	U	5.2	U	5.5	U	4.6	U	4.1	U	5.2	U	5.3	U	4.9	U	5.1	U	5.2	U
Bromomethane	110,000	10,000	200	**		92	U	4.7	U	4.5	U	5.1	U	4.8	U	4.3	U	4.9	U	5	U	5.2	U	5.5	U	4.6	U	4.1	U	5.2	U	5.3	U	4.9	U	5.1	U	5.2	U
Carbon disulfide	7,800,000	720,000	32,000	**		92	U	4.7	U	4.5	U	5.1	U	4.8	U	4.3	U	4.9	U	5	U	5.2	U	5.5	U	4.6	U	4.1	U	5.2	U	5.3	U	4.9	U	5.1	U	5.2	U
Carbon tetrachloride	5,000	300	70	**		92	U	4.7	U	4.5	U	5.1	U	4.8	U	4.3	U	4.9	U	5	U	5.2	U	5.5	U	4.6	U	4.1	U	5.2	U	5.3	U	4.9	U	5.1	U	5.2	U
Chlorobenzene	1,600,000	130,000	1,000	**		92	U	4.7	U	4.5	U	5.1	U	4.8	U	4.3	U	4.9	U	5	U	5.2	U	5.5	U	4.6	U	4.1	U	5.2	U	5.3	U	4.9	U	5.1	U	5.2	U
Chloroethane	NL	NL	NL	NL		92	U	4.7	U	4.5	U	5.1	U	4.8	U	4.3	U	4.9	U	5	U	5.2	U	5.5	U	4.6	U	4.1	U	5.2	U	5.3	U	4.9	U	5.1	U	5.2	U
Chloroform	100,000	300	600	**		92	U	4.7	U	4.5	U	5.1	U	4.8	U	4.3	U	4.9	U	5	U	5.2	U	5.5	U	4.6	U	4.1	U	5.2	U	5.3	U	4.9	U	5.1	U	5.2	U
Chloromethane	NL	NL	NL																																				

**TABLE 1.1**  
**SOIL ANALYTICAL RESULTS – OUTSIDE CONTAINER STORAGE AREA (OSA)**  
**(S1-S8) – VOCs, DRO/JP-4, and RCRA METALS**  
**AREA 9/10**  
**SOUTHEAST ROCKFORD GROUNDWATER CONTAMINATION SUPERFUND SITE**  
**ROCKFORD, IL**  
**ENDNOTES**

## Analytical Table Notes:

## Sample Collection Method

SB - Soil Boring

GW - Groundwater

## General Abbreviations and Symbols

NL - Not Listed

Res - Result or Reporting Limit

RO - Remediation Objective

Q - Qualifier

\*\* - Less than or equal to specified RO

## Data Presentation

0.005	U	Not detected at specified Reporting Limit
<b>0.005</b>	<b>U</b>	(Bold) Detection limit above lowest specified RO
<i>0.005</i>		(Bold, Italic) Indicates compound detected but below lowest specified RO
<del>0.005</del>		(Bold, Italic, Shaded) Indicates compound detected above lowest specified RO
		(Blank) Indicates no analytical data for compound

## Analytical Data Qualifiers

B - (M)eta(s) Results less than reporting limit but greater than or equal to Method Detection Limit

E - Result exceeds calibration range, secondary dilution required

U - Not Detected

L - Estimated value below the Reporting Limit

a - Concentration is below the Method Reporting Limit

\* - Batch QC exceeded the upper or lower control limits

H - Result based on an alternative peak selection upon analytical review

M - Manually Integrated Compound

#: Concentration above Background Level but below lowest RO

**TABLE 1.2**  
**SOIL ANALYTICAL RESULTS - HS PLANT #1 AND OFFSITE PROPERTIES-**  
**VOCs and DRO/JP-4**  
**AREA 9/10**  
**SOUTHEAST ROCKFORD GROUNDWATER CONTAMINATION SUPERFUND SITE**  
**ROCKFORD, ILLINOIS**  
**S9 - S15 and SMW SAMPLES**

Analyte	ROD - Preliminary Remediation Goals and/or Section 742.Table A: Tier 1 Soil Remediation Objectives for Residential Properties				Location Depth Sample Date	SB-S9 8-10'	SB-S9 17.5-18.5'	SB-S9 26-28'	SB-S10 10-11'	SB-S10 22-23'	SB-S11 10-12'	SB-S11 26-28'	SB-S12 2-4'	SB-S12 26-28'	SB-S13 2-4'	SB-S13 24-26'	SB-S14 8-10'	SB-S14 24-26'	SBD-S14	SB-S15 24-26'	SB-S15 10-12'	SB-S15 22-24'	SB-SMW-1 10-12'	SB-SMW-1 28-30'					
	Soil Ingestion (ug/kg)	Soil Inhalation (ug/kg)	Soil Component of Groundwater Class 1 (ug/kg)	ADL (ug/kg)		Units		ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg						
						RES	Q																						
1,1,1-Trichloroethane	NL	1,200,000	2,000	**		4.8	U	5.1	U	5.1	U	4.4	U	5	U	5	U	4.6	U	48		4.8	U	4.8	U				
1,1,2,2-Tetrachloroethane	NL	NL	NL	NL		4.8	U	5.1	U	5.1	U	4.4	U	5	U	5	U	4.6	U	4.8	U	4.8	U	4.8	U				
1,1,2-Trichloroethane	310,000	1,800,000	20	**		4.8	U	5.1	U	5.1	U	4.4	U	5	U	5	U	4.6	U	4.8	U	4.8	U	4.8	U				
1,1-Dichloroethane	7,800,000	1,300,000	23,000	**		4.8	U	5.1	U	5.1	U	4.4	U	5	U	5	U	4.6	U	4.8	U	4.8	U	4.8	U				
1,1-Dichloroethene	700,000	1,500,000	60	**		4.8	U	5.1	U	5.1	U	4.4	U	5	U	5	U	4.6	U	4.8	U	4.8	U	4.8	U				
1,2-Dichloroethane	7,000	400	20	**		4.8	U	5.1	U	5.1	U	4.4	U	5	U	5	U	4.6	U	4.8	U	4.8	U	4.8	U				
1,2-Dichloroethene (total)	NL	NL	NL	NL		4.8	U	5.1	U	5.1	U	4.4	U	5	U	5	U	4.6	U	4.8	U	4.8	U	4.8	U				
1,2-Dichloropropane	9,000	15,000	30	**		4.8	U	5.1	U	5.1	U	4.4	U	5	U	5	U	4.6	U	4.8	U	4.8	U	4.8	U				
2-Butanone (MEK)	NL	NL	NL	NL		4.8	U	6		5.1	U	9.1		5.2		5	U	4.6	U	4.8	U	96	U	5	U				
2-Hexanone	NL	NL	NL	NL		4.8	U	5.1	U	5.1	U	4.4	U	5	U	5	U	4.6	U	4.8	U	96	U	5	U				
4-Methyl-2-pentanone (MIBK)	NL	NL	NL	NL		4.8	U	5.1	U	5.1	U	4.4	U	5	U	5	U	4.6	U	4.8	U	96	U	5	U				
Acetone	7,800,000	100,000,000	16,000	**		9.3		19		16		32		19		19		4.6	U	13		15		28	M	96	U		
Benzene	12,000	800	30	**		4.8	U	5.1	U	5.1	U	4.4	U	5	U	5	U	4.6	U	4.8	U	3.4	Ja	24	U	5	U		
Bromodichloromethane	10,000	3,000,000	600	**		4.8	U	5.1	U	5.1	U	4.4	U	5	U	5	U	4.6	U	4.8	U	96	U	5	U	5.1	U		
Bromoform	81,000	53,000	800	**		4.8	U	5.1	U*	5.1	U	4.4	U*	5	U*	5	U	4.6	U	4.8	U	96	U	5	U	5.1	U		
Bromomethane	110,000	10,000	200	**		4.8	U	5.1	U*	5.1	U	4.4	U*	5	U*	5	U	4.6	U	4.8	U	96	U	5	U	5.1	U		
Carbon disulfide	7,800,000	720,000	32,000	**		4.8	U	5.1	U	5.1	U	4.4	U	5	U	5	U	4.6	U	4.8	U	96	U	5	U	5.1	U		
Carbon tetrachloride	5,000	300	70	**		4.8	U	5.1	U	5.1	U	4.4	U	5	U	5	U	4.6	U	4.8	U	96	U	5	U	5.1	U		
Chlorobenzene	1,600,000	130,000	1,000	**		4.8	U	5.1	U	5.1	U	4.4	U	5	U	5	U	4.6	U	4.8	U	96	U	5	U	5.1	U		
Chloroethane	NL	NL	NL	NL		4.8	U	5.1	U	5.1	U	4.4	U	5	U	5	U	4.6	U	4.8	U	96	U	5	U	5.1	U		
Chloroform	100,000	300	600	**		4.8	U	5.1	U	5.1	U	4.4	U	5	U	5	U	4.6	U	4.8	U	96	U	5	U	5.1	U		
Chloromethane	NL	NL	NL	NL		4.8	U	5.1	U	5.1	U	4.4	U	5	U	5	U	4.6	U	4.8	U	96	U	5	U	5.1	U		
cis-1,3-Dichloropropene	NL	NL	NL	NL		4.8	U	5.1	U	5.1	U	4.4	U	5	U	5	U	4.6	U	4.8	U	96	U	5	U	5.1	U		
Ethylbenzene	7,800,000	400,000	13,000	**		4.8	U	5.1	U	5.1	U	4.4	U	5	U	5	U	4.6	U	4.8	U	2.7	Ja	24	U	5	U		
Methylene chloride	85,000	13,000	20	**		4.8	U	5.1	U	5.1	U	4.4	U	5	U	5	U	4.6	U	4.8	U	4.8	U	130	5	U	140		
Styrene	16,000,000	1,500,000	4,000	**		4.8	U	5.1	U	5.1	U	4.4	U	5	U	5	U	4.6	U	4.8	U	96	U	5	U	5.1	U		
Tetrachloroethene	12,000	11,000	60	**		4.8	U	5.7		6.8		24		4.6	Ja	40		49		29,000		27		1,500		11		96	U
Toluene	16,000,000	650,000	12,000	**		7.5		9.6		8		7.6		9.7		7.5		7	H	4.8	U	7.9		24	U	3.9	Ja	24	U
trans-1,3-Dichloropropene	NL	NL	NL	NL		4.8	U	5.1	U	5.1	U	4.4	U	5	U	5	U	4.6	U	4.8	U	96	U	5	U	5.1	U		
Trichloroethene	58,000	5,000	60	**		4.8	U	5.1	U	5.1	U	4.4	U	5	U	5	U	4.6	U	27		4.8	U	180	5	U	96		
Vinyl chloride	460	280	10	**		4.8	U	5.1	U	5.1	U																		

**TABLE 1.2**  
**SOIL ANALYTICAL RESULTS - HS PLANT #1 AND OFFSITE PROPERTIES-**  
**VOCs and DRO/JP-4**  
**AREA 9/10**  
**SOUTHEAST ROCKFORD GROUNDWATER CONTAMINATION SUPERFUND SITE**  
**ROCKFORD, ILLINOIS**  
**S9 - S15 and SMW SAMPLES**

Analyte	ROD - Preliminary Remediation Goals and/or Section 742, Table A: Tier 1 Soil Remediation Objectives for Residential Properties				Location Depth Sample Date	SB-SMW-2 9-11' 10/21/2003	SB-SMW-2 27-29' 10/21/2003	SB-SMW-4 5-7' 10/23/2003	SB-SMW-4 27-29' 10/23/2003	SB-SMW-5 5-7' 10/23/2003	SB-SMW-5 27-29' 10/23/2003	SB-SMW-6 12-14' 3/8/2004	SB-SMW-6 25-27' 3/8/2004	SB-SMW-7 10-12' 3/9/2004	SB-SMW-7 24-25' 3/9/2004	SB-SMW-8 9-11' 10/25/2003	SB-SMW-8 29-31' 10/25/2003	SB-SMW-10 5-7' 3/4/2004	SB-SMW-10 10-12' 3/4/2004	SB-SMW-10 24-25' 3/4/2004	SB-SMW-12 2-3' 11/5/2003	SB-SMW-12 27-28' 11/5/2003																	
	Soil Ingestion (ug/kg)	Soil Inhalation (ug/kg)	Soil Component of Groundwater Class 1 (ug/kg)	ADL (ug/kg)		Units	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg																				
						RES	Q																																
1,1,1-Trichloroethane	NL	1,200,000	2,000	**		5	U	4.6	U	4.3	U	5.1	U	9.7		5	U	5	U*	4.9	U*	5.2	U	2.7	Ja	4.3	Ja	4.5	U	5.4	U	7.5	U	5.1	U				
1,1,2,2-Tetrachloroethane	NL	NL	NL	NL		5	U	4.6	U	4.3	U	5.1	U	3.9	U	5	U	5	U	5.2	U	5	U	4.9	U	5.2	U	5	U	4.7	U	4.5	U	5.4	U	7.5	U	5.1	U
1,1,2-Trichloroethane	310,000	1,800,000	20	**		5	U	4.6	U	4.3	U	5.1	U	3.9	U	5	U	5	U	5.2	U	5	U	4.9	U	5.2	U	5	U	4.7	U	4.5	U	5.4	U	7.5	U	5.1	U
1,1-Dichloroethane	7,800,000	1,300,000	23,000	**		5	U	4.6	U	4.3	U	5.1	U	3.9	U	5	U	5	U	5.2	U*	5	U*	4.9	U*	5.2	U	5	U	4.7	U	4.5	U	5.4	U	7.5	U	5.1	U
1,1-Dichloroethene	700,000	1,500,000	60	**		5	U	4.6	U	4.3	U	5.1	U	3.9	U	5	U	5	U	5.2	U	5	U	4.9	U	5.2	U	5	U	4.7	U	4.5	U	5.4	U	7.5	U	5.1	U
1,2-Dichloroethane	7,000	400	20	**		5	U	4.6	U	4.3	U	5.1	U	3.9	U	5	U	5	U	5.2	U	5	U	4.9	U	5.2	U	5	U	4.7	U	4.5	U	5.4	U	7.5	U	5.1	U
1,2-Dichloroethene (total)	NL	NL	NL	NL		5	U	4.6	U	4.3	U	5.1	U	3.9	U	5	U	5	U	5.2	U	5	U	4.9	U	5.2	U	5	U	5.1		4.5	U	5.4	U	7.5	U	5.1	U
1,2-Dichloropropane	9,000	15,000	30	**		5	U	4.6	U	4.3	U	5.1	U	3.9	U	5	U	5	U	5.2	U	5	U	4.9	U	5.2	U	5	U	4.7	U	4.5	U	5.4	U	7.5	U	5.1	U
2-Butanone (MEK)	NL	NL	NL	NL		5	U	4.6	U	5		5.6		3.9	Ua	5	U	5	U	5.2	U	5	U	4.9	U	5.2	U	5	U	4.6	Ja	4.5	U	5.4	U	7.5	U	6.7	
2-Hexanone	NL	NL	NL	NL		5	U	4.6	U	4.3	U	5.1	U	3.9	U	5	U	5	U	5.2	U	5	U	4.9	U	5.2	U	5	U	4.7	U	2.4	Ja	5.4	U	7.5	U	5.1	U
4-Methyl-2-pentanone (MIBK)	NL	NL	NL	NL		5	U	4.6	U	4.3	U	5.1	U	3.9	U	5	U	5	U	5.2	U	5	U	4.9	U	5.2	U	5	U	4.7	U	4.5	U	5.4	U	7.5	U	5.1	U
Acetone	7,800,000	100,000,000	16,000	**		17	B	14	B	43	B	29	B	21	B	10	B	18	M	5.2	U	5	U	4.9	U	16		16		54		19	M	12		18	28		
Benzene	12,000	800	30	**		3	Ja	2.4	Ja	4.3	U	5.1	U	3.9	U	2.8	Ja	2.7	Ja	5.2	U	5	U	4.9	U	2.7	Ja	2.5	Ja	4.7	U	3.5	Ja	3	Ja	7.5	U	5.1	U
Bromodichloromethane	10,000	3,000,000	600	**		5	U	4.6	U	4.3	U	5.1	U	3.9	U	5	U	5	U	5.2	U	5	U	4.9	U	5.2	U	5	U	4.7	U	4.5	U	5.4	U	7.5	U	5.1	U
Bromoform	81,000	53,000	800	**		5	U	4.6	U	4.3	U	5.1	U	3.9	U	5	U	5	U	5.2	U	5	U	4.9	U	5.2	U	5	U	4.7	U	4.5	U	5.4	U	7.5	U	5.1	U*
Bromomethane	110,000	10,000	200	**		5	U	4.6	U	4.3	U	5.1	U	3.9	U	5	U	5	U	5.2	U	5	U	4.9	U	5.2	U	5	U	4.7	U	4.5	U	5.4	U	7.5	U	5.1	U*
Carbon disulfide	7,800,000	720,000	32,000	**		5	U	4.6	U	4.3	U	5.1	U	3.9	U	5	U	5	U	5.2	U*	5	U*	4.9	U*	5.2	U	5	U	4.7	U	4.5	U	5.4	U	7.5	U	5.1	U
Carbon tetrachloride	5,000	300	70	**		5	U	4.6	U	4.3	U	5.1	U	3.9	U	5	U	5	U	5.2	U*	5	U*	4.9	U*	5.2	U	5	U	4.7	U	4.5	U	5.4	U	7.5	U	5.1	U
Chlorobenzene	1,600,000	130,000	1,000	**		5	U	4.6	U	4.3	U	5.1	U	3.9	U	5	U	5	U	5.2	U	5	U	4.9	U	5.2	U	5	U	4.7	U	4.5	U	5.4	U	7.5	U	5.1	U
Chloroethane	NL	NL	NL	NL		5	U	4.6	U	4.3	U	5.1	U	3.9	U	5	U	5	U	5.2	U	5	U	4.9	U	5.2	U	5	U	4.7	U	4.5	U	5.4	U	7.5	U	5.1	U
Chloroform	100,000	300	600	**		5</																																	

**TABLE 1.2**  
**SOIL ANALYTICAL RESULTS - HS PLANT #1 AND OFFSITE PROPERTIES-**  
**VOCs and DRO/JP-4**  
**AREA 9/10**  
**SOUTHEAST ROCKFORD GROUNDWATER CONTAMINATION SUPERFUND SITE**  
**ROCKFORD, ILLINOIS**  
**S9 - S15 and SMW SAMPLES**

Analyte	ROD - Preliminary Remediation Goals and/or Section 742.Table A: Tier 1 Soil Remediation Objectives for Residential Properties				Location Depth Sample Date	SB-SMW-14	SB-SMW-14	SB-SMW-15	SB-SMW-16	SB-SMW16	SBD-SMW16	SB-SMW-16A	SB-SMW-16A	SB-SMW-17	SB-SMW-17	SB-SMW-18	SB-SMW-18	SB-SMW-18	SB-SMW-19	SB-SMW-19																	
	Soil Ingestion (ug/kg)	Soil Inhalation (ug/kg)	Soil Component of Groundwater Class 1 (ug/kg)	ADL (ug/kg)		ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg																		
						RES Q																															
1,1,1-Trichloroethane	NL	1,200,000	2,000	**		4.6	U	4.9	U	6.8	M	4.8	U	91	U	5.5	U	5.2	U	4.3	U	5	U	110	U	4.4	U	160	U	2.4	Ja	5.5	U	6.4	U	4.9	U
1,1,2,2-Tetrachloroethane	NL	NL	NL	NL		4.6	U	4.9	U	4.9	U	4.8	U	91	U	5.5	U	5.2	U	4.3	U	5	U	110	U	4.4	U	8.5	U	4.4	U	5.5	U	6.4	U	4.9	U
1,1,2-Trichloroethane	310,000	1,800,000	20	**		4.6	U	4.9	U	4.9	U	4.8	U	91	U	5.5	U	5.2	U	4.3	U	5	U	110	U	4.4	U	8.5	U	4.4	U	5.5	U	6.4	U	4.9	U
1,1-Dichloroethane	7,800,000	1,300,000	23,000	**		4.6	U	4.9	U	4.9	U	4.8	U	91	U	5.5	U	5.2	U	4.3	U	5	U	110	U	4.4	U	13	U	4.4	U	5.5	U	6.4	U	4.9	U
1,1-Dichloroethene	700,000	1,500,000	60	**		4.6	U	4.9	U	4.9	U	4.8	U	91	U	5.5	U	5.2	U	4.3	U	5	U	110	U	4.4	U	8.5	U	4.4	U	5.5	U	6.4	U	4.9	U
1,2-Dichloroethane	7,000	400	20	**		4.6	U	4.9	U	4.9	U	4.8	U	91	U	5.5	U	5.2	U	4.3	U	5	U	110	U	4.4	U	8.5	U	4.4	U	5.5	U	6.4	U	4.9	U
1,2-Dichloroethene (total)	NL	NL	NL	NL		4.6	U	4.9	U	4.9	U	4.8	U	91	U	5.5	U	5.2	U	4.3	U	5	U	110	U	4.4	U	8.5	U	4.4	U	5.5	U	6.4	U	4.9	U
1,2-Dichloropropane	9,000	15,000	30	**		4.6	U	4.9	U	4.9	U	4.8	U	91	U	5.5	U	5.2	U	4.3	U	5	U	110	U	4.4	U	8.5	U	4.4	U	5.5	U	6.4	U	4.9	U
2-Butanone	NL	NL	NL	NL		4.6	U	4.9	U	4.9	U	4.8	U	91	U	5.5	U	5.2	U	4.3	U	5	U	110	U	4.4	U	8.5	U	4.4	U	5.5	U	6.4	U	4.9	U
2-Hexanone	NL	NL	NL	NL		4.6	U	4.9	U	4.9	U	4.8	U	91	U	5.5	U	5.2	U	4.3	U	5	U	110	U	4.4	U	8.5	U	4.4	U	5.5	U	6.4	U	4.9	U
4-Methyl-2-pentanone (MIBK)	NL	NL	NL	NL		4.6	U	4.9	U	4.9	U	4.8	U	91	U	5.5	U	5.2	U	4.3	U	5	U	110	U	4.4	U	8.5	U	4.4	U	5.5	U	6.4	U	4.9	U
Acetone	7,800,000	100,000,000	16,000	**		52		20		24	B	14	B	180	U	5.5	U	6.1		4.3	U	5	U	220	U	4.4	U	27	M	6.2		5.5	U	19		20	
Benzene	12,000	800	30	**		4.6	U	4.9	U	4.9	U	2.6	Ja	23	U	5.5	U	2.7	Ja	4.3	U	5	U	27	U	4.4	U	8.5	U	5.3		5.5	U	6.4	U	4.9	U
Bromodichloromethane	10,000	3,000,000	600	**		4.6	U	4.9	U	4.9	U	4.8	U	91	U	5.5	U	5.2	U	4.3	U	5	U	110	U	4.4	U	8.5	U	4.4	U	5.5	U	6.4	U	4.9	U
Bromoform	81,000	53,000	800	**		4.6	U*	4.9	U*	4.9	U	4.8	U	91	U	5.5	U	5.2	U	4.3	U	5	U	110	U	4.4	U	8.5	U	4.4	U	5.5	U	6.4	U	4.9	U
Bromomethane	110,000	10,000	200	**		4.6	U*	4.9	U*	4.9	U	4.8	U	91	U	5.5	U	5.2	U	4.3	U	5	U	110	U	4.4	U	8.5	U	4.4	U	5.5	U	6.4	U	4.9	U
Carbon disulfide	7,800,000	720,000	32,000	**		4.6	U	4.9	U	5.2		4.8	U	91	U	5.5	U	5.2	U	4.3	U	5	U	110	U	4.4	U	5.5	Ja	4.4	U	5.5	U	6.4	U	4.9	U
Carbon tetrachloride	5,000	300	70	**		4.6	U	4.9	U	4.9	U	4.8	UM	91	U	5.5	U	5.2	U	4.3	U	5	U	110	U	4.4	U	8.5	U	4.4	U	5.5	U	6.4	U	4.9	U
Chlorobenzene	1,600,000	130,000	1,000	**		4.6	U	4.9	U	4.9	U	4.8	U	91	U	5.5	U	5.2	U	4.3	U	5	U	110	U	4.4	U	8.5	U	4.4	U	5.5	U	6.4	U	4.9	U
Chloroethane	NL	NL	NL	NL		4.6	U	4.9	U	4.9	U	4.8	U	91	U	5.5	U	5.2	U	4.3	U	5	U	110	U	4.4	U	8.5	U	4.4	U	5.5	U	6.4	U	4.9	U
Chloroform	100,000	300	600	**		4.6	U	4.9	U	4.9	U	4.8	U	91	U	5.5	U	5.2	U	4.3	U	5	U	110	U	4.4	U	8.5	U	4.4	U	5.5	U	6.4	U	4.9	U
Chloromethane	NL	NL	NL	NL		4.6	U	4.9	U	4.9	U	4.8	U	91	U	5.5	U	5.2	U	4.3	U	5	U	110	U	4.4	U	8.5	U	4.4	U	5.5	U	6.4	U	4.9	U
cis-1,3-Dichloropropene	NL	NL	NL	NL		4.6	U	4.9	U	4.9	U	4.8	U	91	U	5.5	U	5.2	U	4.3	U	5	U	110	U	4.4	U	8.5	U	4.4	U	5.5	U	6.4	U	4.9	U
Ethylbenzene	7,800,000	400,000	13,000	**		4.6	U	4.9	U	4.9	U	2.7	Ja	23	U</																						

**TABLE 1.2**  
**SOIL ANALYTICAL RESULTS - HS PLANT #1 AND OFFSITE PROPERTIES-**  
**VOCs and DRO/JP-4**  
**AREA 9/10**  
**SOUTHEAST ROCKFORD GROUNDWATER CONTAMINATION SUPERFUND SITE**  
**ROCKFORD, ILLINOIS**  
**S9 - S15 and SMW SAMPLES**

Analyte	ROD - Preliminary Remediation Goals and/or Section 742.Table A: Tier 1 Soil Remediation Objectives for Residential Properties				Location Depth Sample Date	SB-SMW-20 8-10'	SB-SMW-20 26-28'	SB-SMW-21 10-12'	SB-SMW-21 26-28'	SB-SMW-22 8-10'	SB-SMW-22 26-28'	
	Soil Ingestion (ug/kg)	Soil Inhalation (ug/kg)	Soil Component of Groundwater Class 1 (ug/kg)	ADL (ug/kg)		ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	ug/kg	
						RES	Q					
1,1,1-Trichloroethane	NL	1,200,000	2,000	**		4.5	U	4.8	U	3.9	U	
1,1,2,2-Tetrachloroethane	NL	NL	NL	NL		4.5	U	4.8	U	3.9	U	
1,1,2-Trichloroethane	310,000	1,800,000	20	**		4.5	U	4.8	U	3.9	U	
1,1-Dichloroethane	7,800,000	1,300,000	23,000	**		4.5	U	4.8	U	3.9	U	
1,1-Dichloroethene	700,000	1,500,000	60	**		4.5	U	4.8	U	3.9	U	
1,2-Dichloroethane	7,000	400	20	**		4.5	U	4.8	U	3.9	U	
1,2-Dichloroethene (total)	NL	NL	NL	NL		4.5	U	4.8	U	3.9	U	
1,2-Dichloropropane	9,000	15,000	30	**		4.5	U	4.8	U	3.9	U	
2-Butanone (MEK)	NL	NL	NL	NL		4.5	U	4.8	U	3.9	U	
2-Hexanone	NL	NL	NL	NL		4.5	U	4.8	U	3.9	U	
4-Methyl-2-pentanone (MIBK)	NL	NL	NL	NL		4.5	U	4.8	U	3.9	U	
Acetone	7,800,000	100,000,000	16,000	**		22		10		31		
Benzene	12,000	800	30	**		4.5	U	4.8	U	3.9	U	
Bromodichloromethane	10,000	3,000,000	600	**		4.5	U	4.8	U	3.9	U	
Bromoform	81,000	53,000	800	**		4.5	U	4.8	U	3.9	U	
Bromomethane	110,000	10,000	200	**		4.5	U	4.8	U	3.9	U	
Carbon disulfide	7,800,000	720,000	32,000	**		4.5	U	4.8	U	3.9	U	
Carbon tetrachloride	5,000	300	70	**		4.5	U	4.8	U	3.9	U	
Chlorobenzene	1,600,000	130,000	1,000	**		4.5	U	4.8	U	3.9	U	
Chloroethane	NL	NL	NL	NL		4.5	U	4.8	U	3.9	U	
Chloroform	100,000	300	600	**		4.5	U	4.8	U	3.9	U	
Chloromethane	NL	NL	NL	NL		4.5	U	4.8	U	3.9	U	
cis-1,3-Dichloropropene	NL	NL	NL	NL		4.5	U	4.8	U	3.9	U	
Ethylbenzene	7,800,000	400,000	13,000	**		4.5	U	4.8	U	3.9	U	
Methylene chloride	85,000	13,000	20	**		4.5	U	4.8	U	3.9	U	
Styrene	16,000,000	1,500,000	4,000	**		4.5	U	4.8	U	3.9	U	
Tetrachloroethene	12,000	11,000	60	**		4.5	U	4.8	U	3.9	U	
Toluene	16,000,000	650,000	12,000	**		4.5	U	6.2		3.9	U	
trans-1,3-Dichloropropene	NL	NL	NL	NL		4.5	U	4.8	U	3.9	U	
Trichloroethene	58,000	5,000	60	**		4.5	U	4.8	U	3.9	U	
Vinyl chloride	460	280	10	**		4.5	U	4.8	U	3.9	U	
Xylenes (total)	160,000,000	320,000	150,000	**		4.5	U	4.8	U	3.9	U	
DRO/JP-4						4,300	U	4,100	U*	4,400	U*	
										4,400	U	
										4,200	U*	
										4,300	U	

**TABLE 1.2**  
**SOIL ANALYTICAL RESULTS - HS PLANT #1 AND OFFSITE PROPERTIES-**  
**VOCS and DRO/JP-4**  
**AREA 9/10**  
**SOUTHEAST ROCKFORD GROUNDWATER CONTAMINATION SUPERFUND SITE**  
**ROCKFORD, ILLINOIS**

ENDNOTES

Analytical Table Notes:

Sample Collection Method

SB - Soil Boring

GW - Groundwater

General Abbreviations and Symbols

NL - Not Listed

Res - Result or Reporting Limit

RO - Remediation Objective

Q - Qualifier

\*\* - Less than or equal to specified RO

Data Presentation

0.005	U	Not detected at specified Reporting Limit
<b>0.005</b>	<b>U</b>	(Bold) Detection limit above lowest specified RO
<i>0.005</i>		(Bold, Italic) Indicates compound detected but below lowest specified RO
<b>0.005</b>		(Bold, Italic, Shaded) Indicates compound detected above lowest specified RO
		(Blank) Indicates no analytical data for compound

Analytical Data Qualifiers

B - (Metals) Results less than reporting limit but greater than or equal to Method Detection Limit

E - Result exceeds calibration range, secondary dilution required

U - Not Detected

J - Estimated value below the Reporting Limit

a - Concentration is below the Method Reporting Limit

\* - Batch QC exceeded the upper or lower control limits

H - Result based on an alternative peak selection upon analytical review

M - Manually Integrated Compound

# - Concentration above Background Level but below lowest RO

**TABLE 2.1**  
**Historical Groundwater Analytical Results - VOCs, DRO/JP-4**

**Area 9/10**  
**Southeast Rockford Groundwater Contamination Superfund Site**  
**Rockford, Illinois**

Analyte	ROD - Preliminary Remediation Goals and/or Class 1- Groundwater Remediation Objectives for TACO Chemicals	Location Sample Date	GW-SMW-1	GW-SMW-1	GW-SMW-2	GW-SMW-2	GW-SMW-3	GW-SMW-3	GW-SMW-4	GW-SMW-4	GW-SMW-5	GW-SMW-5	GW-SMW-6	GW-SMW-6	GW-SMW-7	GW-SMW-7	GW-SMW-8	GW-SMW-8	GW-SMW-9
			4/26/2004	11/16/2004	4/26/2004	11/16/2004	4/26/2004	11/16/2004	4/26/2004	11/16/2004	4/26/2004	11/16/2004	4/27/2004	11/17/2004	4/27/2004	11/16/2004	4/26/2004	11/16/2004	4/26/2004
			(ug/L)	RES	Q	ug/L	ug/L												
1,1,1-Trichloroethane	200		6.1		7.7		1	U	1	U	1	U	12		11		15		1,100
1,1,2,2-Tetrachloroethane	NL		1	U	1	U	1	U	1	U	1	U	1	U	1	U	100	U	100
1,1,2-Trichloroethane	5		1	U	1	U	1	U	1	U	1	U	1	U	1	U	100	U	14 Ja
1,1-Dichloroethane	700		1	U	1	U	1	U	1	U	0.8	Ja	6.7		3.5		11		7.6
1,1-Dichloroethene	7		1	U	1	U	1	U	1	U	1	U	0.7	Ja	2.2		2.7		470
1,2-Dichloroethane	5		1	U	1	U	1	U	1	U	1	U	1	U	1	U	100	U	100
1,2-Dichloroethene (total)	NL		1	U	1	U	4.4		1	U	1	U	21		20		38		26
1,2-Dichloropropane	5		1	U	1	U	1	U	1	U	1	U	1	U	1	U	100	U	100
2-Butanone (MEK)	NL		5	U	5	U	5	U	5	U	5	U	5	U	5	U	500	U	500
2-Hexanone	NL		5	U	5	U	5	U	5	U	5	U	5	U	5	U	500	U	500
4-Methyl-2-pentanone (MIBK)	NL		5	U	5	U	5	U	5	U	5	U	5	U	5	U	500	U	500
Acetone	700		5	U	5	U	5	U	5	U	5	U	5	U	5	U	500	U	500
Benzene	5		1	U	1	U	1	U	1	U	1	U	1	U	1	U	100	U	100
Bromodichloromethane	0.2		1	U	1	U	1	U	1	U	1	U	1	U	1	U	100	U	100
Bromoform	1		1	U	1	U*	1	U	1	U*	1	U	1	U*	1	U	100	U	100
Bromomethane	9.8		1	U	1	U	1	U	1	U	1	U	1	U	1	U	100	U	100
Carbon disulfide	700		5	U	5	U	5	U	5	U	5	U	5	U	5	U	500	U	500
Carbon tetrachloride	5		1	U	1	U	1	U	1	U	1	U	1	U	1	U	100	U	100
Chlorobenzene	100		1	U	1	U	1	U	1	U	1	U	1	U	1	U	100	U	100
Chloroethane	NL		1	U	1	U	1	U	1	U	1	U	1	U	1	U	100	U	100
Chloroform	0.2		1	U	1	U	1	U	1	U	1	U	1	U	1	U	100	U	100
Chloromethane	NL		1	U	1	U	1	U	1	U	1	U	1	U	1	U	100	U	100
cis-1,2-Dichloroethene	70																		
cis-1,3-Dichloropropene	NL		1	U	1	U	1	U	1	U	1	U	1	U	1	U	100	U	100
Dibromochloromethane	140		1	U	1	U*	1	U	1	U*	1	U	1	U*	1	U	100	U	100
Ethylbenzene	700		1	U	1	U	1	U	1	U	1	U	1	U	1	U	100	U	100
Methylene chloride	5		1	U	1	U	1	U	1	U	1	U	1	U	1	U	100	U	100
Styrene	100		1	U	1	U	1	U	1	U	1	U	1	U	1	U	100	U	100
Tetrachloroethene	5		2.4	H	3.6		1.3		0.71	Ja	1	U	0.98	Ja	71		77		34
Toluene	1,000		1	U	1	U	1	U	1	U	1	U	1	U	1	U	100	U	100
trans-1,2-Dichloroethene	100																		
trans-1,3-Dichloropropene	NL		1	U	1	U	1	U	1	U	1	U	1	U	1	U	100	U	100
Trichloroethene	5		1	U	1	U	1	U	1	U	1	U	1	U	1	U	100	U	100
Vinyl chloride	2		1	U	1	U	1	U	1	U	1	U	1	U	1	U	100	U	100
Xylenes (total)	10,000		1	U	1	U	1	U	1	U	1	U	1	U	1	U	100	U	100
TPH - Jet Fuel (JP4)			120	U	120	U	120	U	120	U	130	Ua	120	U	130	U	120	U	130

See separate analytical notes page for table explanation.

TABLE 2.1  
Historical Groundwater Analytical Results - VOCs, DRO/JP-4

Area 9/10  
Southeast Rockford Groundwater Contamination Superfund Site  
Rockford, Illinois

Analyte	ROD - Preliminary Remediation Goals and/or Class 1-Groundwater Remediation Objectives for TACO Chemicals	Location Sample Date	GW-SMW-9	GW-SMW-10	GW-SMW-10R	GW-SMW-11R	GW-SMW-11R	GW-SMW-12	GWD-SMW-12	GW-SMW-13	GW-SMW-13	GW-SMW-14	GW-SMW-14	GW-SMW-15	GW-SMW-15	GW-SMW-16A	GW-SMW-16A	
			11/17/2004	4/27/2004	11/17/2004	4/26/2004	11/16/2004	4/26/2004	11/16/2004	4/26/2004	11/17/2004	4/26/2004	11/17/2004	4/26/2004	11/17/2004	4/27/2004	11/16/2004	
			(ug/L)	RES	Q	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	
1,1,1-Trichloroethane	200		24		19		16		1.4		5.1		8		10		1.7	
1,1,2,2-Tetrachloroethane	NL		1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,1,2-Trichloroethane	5		1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,1-Dichloroethane	700		6.7		5.9		4.8		2.1		1.3		3.5		4.3		1	
1,1-Dichloroethene	7		3.5		2.5		2.2		1	U	1	U	0.95	J	1		1	U
1,2-Dichloroethane	5		1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
1,2-Dichloroethene (total)	NL		2.9		1.6	a	1.3	a	2.1		1.2	a	2.8		3.8		1	U
1,2-Dichloropropane	5		1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
2-Butanone (MEK)	NL		5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
2-Hexanone	NL		5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
4-Methyl-2-pentanone (MIBK)	NL		5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Acetone	700		5	U	5	U	5	U	2.1	J	5	U	5	U	5	U	5	U
Benzene	5		1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Bromodichloromethane	0.2		1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Bromoform	1		1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U*
Bromomethane	9.8		1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Carbon disulfide	700		5	U	5	U	5	U	5	U	5	U	5	U	5	U	5	U
Carbon tetrachloride	5		1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Chlorobenzene	100		1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Chloroethane	NL		1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Chloroform	0.2		1	U	1	U	1	U	1	U	1	U	1	U	0.7	Ja	1	U
Chloromethane	NL		1	U	1	U	1	U	1	U*	1	U	1	U	1	U	1	U
cis-1,2-Dichloroethene	70																	
cis-1,3-Dichloropropene	NL		1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Dibromochloromethane	140		1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U*
Ethylbenzene	700		1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Methylene chloride	5		1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Styrene	100		1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Tetrachloroethene	5		7.6		5.9		4.7		1.3		1.6		4.6		8.3		15	
Toluene	1,000		1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
trans-1,2-Dichloroethene	100																	
trans-1,3-Dichloropropene	NL		1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
Trichloroethene	5		3.7		3.4		2.6		1.8		1.1		2.9		3.4		14	
Vinyl chloride	2		1	U	1	U	1	U	1	U	1	U	1	U	1	U	0.81	Ja
Xylenes (total)	10,000		1	U	1	U	1	U	1	U	1	U	1	U	1	U	1	U
TPH - Jet Fuel (JP4)			120	U	130	U	120	U	120	U	120	U	120	U	130	U	120	Ua

See separate analytical notes page for table explanation.

**TABLE 2.1**  
**Historical Groundwater Analytical Results - VOCs, DRO/JP-4**

**Area 9/10  
Southeast Rockford Groundwater Contamination Superfund Site  
Rockford, Illinois**

Analyte	ROD - Preliminary Remediation Goals and/or Class 1- Groundwater Remediation Objectives for TACO Chemicals	Location Sample Date	GW-SMW-17	GW-SMW-17	GW-SMW-18	GW-SMW-18	GW-SMW-19	GW-SMW-20	GW-SMW-21	GW-SMW-22	GW-MW-3FGA	GW-MW-3FGA	GW-MW-7FGA	GW-MW-7FGA	GW-MW127	GW-MW127	GW-MW127	GW-MW127	GW-MW201^	GW-MW201
			4/27/2004	11/16/2004	4/27/2004	11/16/2004	11/17/2004	11/16/2004	11/16/2004	4/26/2004	11/17/2004	4/26/2004	11/16/2004	10/11/1993	4/27/2004	11/16/2004	7/19/1996	2/16/2000		
		(ug/L)	Units	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L		
			RES	Q																
1,1,1-Trichloroethane	200		1	U	1	U	1	U	5	U	1	U	6,900	34,000	110		1	U	1.8	
1,1,2,2-Tetrachloroethane	NL		1	U	1	U	1	U	5	U	1	U	200	200	U	1	U	1	U	
1,1,2-Trichloroethane	5		1	U	1	U	1	U	5	U	1	U	200	200	U	11	1	U	1	U
1,1-Dichloroethane	700		5.3		3.6		15		25		1	U	30,000	770		340	1	U	1	U
1,1-Dichloroethene	7		1	U	1	U	3.8		9.4		1	U	750	1,700		8.7	1	U	1	U
1,2-Dichloroethane	5		1	U	1	U	1	U	5	U	1	U	200	200	U	6.1	1	U	1	U
1,2-Dichloroethene (total)	NL		1	U	1	U	9.7		49		8.7		28,000	1,800		250	1	U	1	U
1,2-Dichloropropane	5		1	U	1	U	1	U	5	U	1	U	200	200	U	1	U	1	U	
2-Butanone (MEK)	NL		5	U	5	U	5	U	25	U	5	U	1,000	1,000	U	1,000	5	U	5	U
2-Hexanone	NL		5	U	5	U	5	U	25	U	5	U	1,000	1,000	U	5	U	5	U	
4-Methyl-2-pentanone (MIBK)	NL		5	U	5	U	5	U	25	U	5	U	1,000	1,000	U	5	U	5	U	
Acetone	700		5	U	5	U	9.8		25	U	5	U	1,000	1,000	U	5	U	5	U	
Benzene	5		11		8.4		310		220		1	U	200	200	U	1	U	1	U	
Bromodichloromethane	0.2		1	U	1	U	1	U	5	U	1	U	200	200	U	1	U	1	U	
Bromoform	1		1	U	1	U	1	U	5	U	1	U*	200	200	U	1	U	1	U	
Bromomethane	9.8		1	U	1	U	1	U	5	U	1	U	200	200	U	1	U	1	U	
Carbon disulfide	700		5	U	5	U	5	U	25	U	5	U	1,000	1,000	U	5	U	5	U	
Carbon tetrachloride	5		1	U	1	U	1	U	5	U	1	U	200	200	U	1	U	1	U	
Chlorobenzene	100		1	U	1	U	1	U	5	U	1	U	200	200	U	1	U	1	U	
Chloroethane	NL		1	U	1	U	180		190		1	U	590		200	U	4	1	U	
Chloroform	0.2		1	U	1	U	1	U	5	U	1	U	200	200	U	1	U	1	U	
Chloromethane	NL		1	U	1	U	1	U	5	U	1	U	200	200	U	1	U	1	U	
cis-1,2-Dichloroethene	70																		4,500	85.0
cis-1,3-Dichloropropene	NL		1	U	1	U	1	U	5	U	1	U	200	200	U	1	U	1	U	
Dibromochloromethane	140		1	U	1	U	1	U	5	U	1	U*	200	200	U	1	U	1	U	
Ethylbenzene	700		1	U	1	U	250		290		1	U	200	150	Ja	1	U	1	U	
Methylene chloride	5		1	U	1	U	1.5		5	U	1	U	200	200	U	1	U	1	U	
Styrene	100		1	U	1	U	1	U	5	U	1	U	200	200	U	1	U	1	U	
Tetrachloroethene	5		1	U	1	U	1	U	5	U	2.2		200	200	U	290	1.9	1.7	3.3	
Toluene	1,000		1	U	1	U	450		160		1	U	530		200	U	1	U	1	U
trans-1,2-Dichloroethene	100																			
trans-1,3-Dichloropropene	NL		1	U	1	U	1	U	5	U	1	U	200	200	U	1	U	1	U	
Trichloroethene	5		1.1		1	U	1	U	5	U	57		200	200	Ja	120	6.7	3.9	2.5	
Vinyl chloride	2		1	U	1	U	2.7		5	U	1	U	3,500	200	U	3.2	1	U	1	U
Xylenes (total)	10,000		0.88	Ja	1	U	880		750		1	U	750	2,100		6.9	1	U	1	U
TPH - Jet Fuel (JP4)			130	Ua	120	Ua	7200		3600		160	U	2600		1300		120	Ua	120	U

See separate analytical notes page for table explanation.

TABLE 2.1  
Historical Groundwater Analytical Results - VOCs, DRO/JP-4

Area 9/10  
Southeast Rockford Groundwater Contamination Superfund Site  
Rockford, Illinois

Analyte	ROD - Preliminary Remediation Goals and/or Class 1- Groundwater Remediation Objectives for TACO Chemicals	Location Sample Date		GW-MW201	GW-MW202																	
		Units		ug/L																		
		(ug/L)	RES Q																			
1,1,1-Trichloroethane	200			4.9	J	110.0		39.0		12.0		55.0		970.0			86		47			
1,1,2,2-Tetrachloroethane	NL																50	U	10	U		
1,1,2-Trichloroethane	5																50	U	10	U		
1,1-Dichloroethane	700			120.0		330.0		340.0		43.0		150.0		7,100		6,480		8,000		1,700		
1,1-Dichloroethene	7			1.9	J	6.8	J	5.2	J	1.6	J	3.6	J	480.0	J		50	U	10	U		
1,2-Dichloroethane	5																50	U	10	U		
1,2-Dichloroethene (total)	NL																51		30			
1,2-Dichloropropane	5																50	U	10	U		
2-Butanone (MEK)	NL																250	U	50	U		
2-Hexanone	NL																250	U	50	U		
4-Methyl-2-pentanone (MIBK)	NL																250	U	50	U		
Acetone	700																250	U	50	U		
Benzene	5																50	U	10	U		
Bromodichloromethane	0.2																50	U	10	U		
Bromoform	1																50	U	10	U		
Bromomethane	9.8																50	U	10	U		
Carbon disulfide	700																250	U	50	U		
Carbon tetrachloride	5																50	U	10	U		
Chlorobenzene	100																50	U	10	U		
Chloroethane	NL																50	U	30			
Chloroform	0.2																50	U	10	U		
Chloromethane	NL																0.25	J	0.48	J		
cis-1,2-Dichloroethene	70			87.0		220.0		180.0		60.0		120.0		2,200					0.81	J	0.68	J
cis-1,3-Dichloropropene	NL																50	U	10	U		
Dibromochloromethane	140																50	U	10	U		
Ethylbenzene	700																50	U	10	U		
Methylene chloride	5																50	U	10	U		
Styrene	100																50	U	10	U		
Tetrachloroethene	5																50	U	10	U		
Toluene	1,000																50	U	10	U		
trans-1,2-Dichloroethene	100			0.78	J					0.64	J						50	U	10	U		
trans-1,3-Dichloropropene	NL																50	U	10	U		
Trichloroethene	5			15.0		4.5	J	4.9	J	19.0		25.0					26	J	23			
Vinyl chloride	2																44	J	8.1	Ja		
Xylenes (total)	10,000																50	U	10	U		
TPH - Jet Fuel (JP4)																	150	Ua	130	U		

See separate analytical notes page for table explanation.

TABLE 2.1  
Historical Groundwater Analytical Results - VOCs, DRO/JP-4

Area 9/10  
Southeast Rockford Groundwater Contamination Superfund Site  
Rockford, Illinois

Analyte	ROD - Preliminary Remediation Goals and/or Class 1 - Groundwater Remediation Objectives for TACO Chemicals	Location Sample Date	GW-MW202	GW-MW202	GW-MW202	GW-MW203	GW-MW203	GW-MW203	GW-MW203	GW-MW203	GW-MW203	GW-MW203	GW-MW203	GW-MW203	GW-MW203	GW-MW203		
			12/1/2003	4/27/2004	11/18/2004	7/1/1996	6/1/1999	10/27/1999	2/15/2000	4/18/2000	7/25/2000	11/16/2000	4/13/2001	10/1/2001	10/1/2002	12/1/2003	4/27/2004	11/18/2004
			(ug/L)	RES Q	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	
1,1,1-Trichloroethane	200				0.37 Ja	1 U	2.0 J	0.92 J	2.7	0.26 J	0.14 J	0.2 J	0.66 J	0.81 J	0.76 J		1 U 1 U	
1,1,2,2-Tetrachloroethane	NL				1 U	1 U											1 U 1 U	
1,1,2-Trichloroethane	5				1 U	1 U											1 U 1 U	
1,1-Dichloroethane	700				1 U	1 U			0.28 J						0.19 J		1 U 1.6	
1,1-Dichloroethene	7		0.542 J		1 U	1 U			0.42 J								1 U 1 U	
1,2-Dichloroethane	5				1 U	1 U											1 U 1 U	
1,2-Dichloroethene (total)	NL				1 U	1 U											1 U 1 U	
1,2-Dichloropropane	5				1 U	1 U											1 U 1 U	
2-Butanone (MEK)	NL				5 U	5 U											5 U 5 U	
2-Hexanone	NL				5 U	5 U											5 U 5 U	
4-Methyl-2-pentanone (MIBK)	NL				5 U	5 U											5 U 5 U	
Acetone	700				5 U	5 U											5 U 5 U	
Benzene	5				1 U	1 U											1 U 1 U	
Bromodichloromethane	0.2				1 U	1 U											1 U 1 U	
Bromoform	1				1 U	1 U											1 U 1 U	
Bromomethane	9.8				1 U	1 U											1 U 1 U	
Carbon disulfide	700				5 U	5 U											5 U 5 U	
Carbon tetrachloride	5				1 U	1 U											1 U 1 U	
Chlorobenzene	100				1 U	1 U											1 U 1 U	
Chloroethane	NL				1 U	1 U											1 U 1 U	
Chloroform	0.2				1 U	1 U											1 U 1 U	
Chloromethane	NL				1 U	1 U											1 U 1 U	
cis-1,2-Dichloroethene	70						0.67 J	1.5	0.13 J	0.074 J								
cis-1,3-Dichloropropene	NL				1 U	1 U											1 U 1 U	
Dibromochloromethane	140				1 U	1 U											1 U 1 U	
Ethylbenzene	700				1 U	1 U											1 U 1 U	
Methylene chloride	5				1 U	1 U											1 U 1 U	
Styrene	100				1 U	1 U											1 U 1 U	
Tetrachloroethene	5	2.78	2	2.1	7.0 J	14.0	15.0	8.6	11.0	13.0	3.5	3.2	3.1	3.0	8.43	7.6	8.9	
Toluene	1,000				1 U	1 U											1 U 1 U	
trans-1,2-Dichloroethene	100																	
trans-1,3-Dichloropropene	NL				1 U	1 U											1 U 1 U	
Trichloroethene	5	1.11	0.64 J	1 U	1 U		1.2	2.6	0.24 J	0.17 J	0.21 J	0.81 J	0.78 J	0.84 J	0.7 J		1 U 1 U	
Vinyl chloride	2				1 U	1 U											1 U 1 U	
Xylenes (total)	10,000				1 U	1 U											1 U 1 U	
TPH - Jet Fuel (JP4)					140 U	130 U										130 U	120 U	

See separate analytical notes page for table explanation.

TABLE 2.1  
Historical Groundwater Analytical Results - VOCs, DRO/JP-4

Area 9/10  
Southeast Rockford Groundwater Contamination Superfund Site  
Rockford, Illinois

**Analytical Table Notes:**

General Abbreviations and Symbols

NL - Not Listed

MSA - Metropolitan Statistical Area

Res - Result or Reporting Limit

RO - Remediation Objective

Q - Qualifier

\*\* - Less than or equal to specified RO

Data Presentation

0.005	U	Not detected at specified Reporting Limit
<b>0.005</b>	U	(Bold) Detection limit above lowest specified RO
<b>0.005</b>		(Bold, Italic) Indicates compound detected but below lowest specified RO
<b>0.005</b>		(Bold, Italic, Shaded) Indicates compound detected above lowest specified RO
		(Blank) Indicates no analytical data for compound

Analytical Data Qualifiers

B - (Metals) Results less than reporting limit but greater than or equal to Method Detection Limit

E - Result exceeds calibration range, secondary dilution required

U - Not Detected

J - Estimated value below the Reporting Limit

a - Concentration is below the Method Reporting Limit

\* - Batch QC exceeded the upper or lower control limits

H - Result based on an alternative peak selection upon analytical review

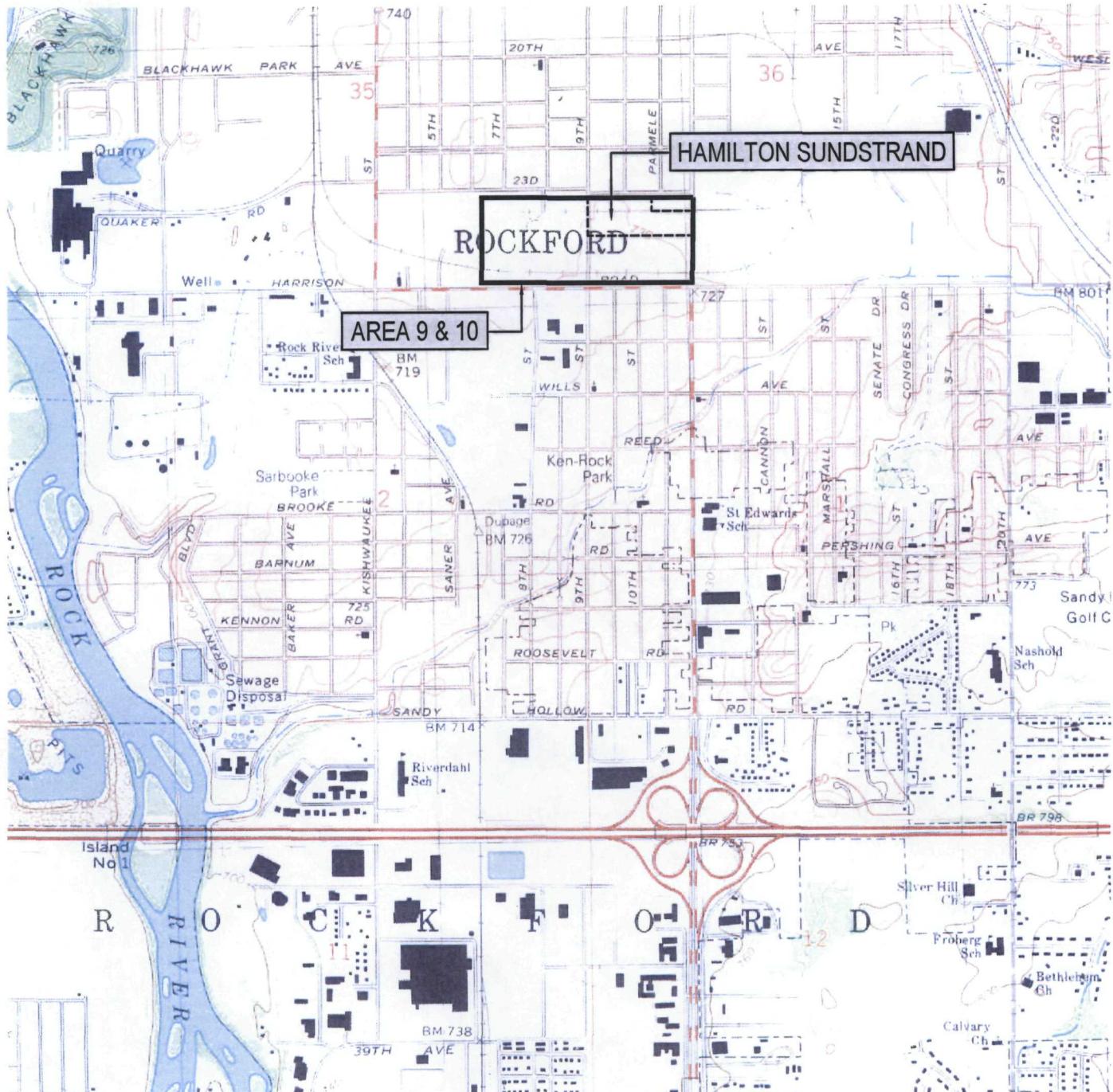
M - Manually Integrated Compound

# - Concentration above Background Level but below lowest RO

Note: Pre-2004 historical groundwater analytical data shows only detected compounds

^ - MW-201 original well was lost and replaced

**FIGURES**



1                    1/2                    0                    1  
SCALE IN MILES

1000      0      1000      2000      3000      4000      5000      6000      7000  
SCALE IN FEET

REFERENCE: USGS 7.5 MINUTE QUADRANGLE; ROCKFORD SOUTH



**SECOR**

446 EISENHOWER LANE NORTH  
LOMBARD, ILLINOIS 60148  
PHONE: (630) 792-1680 FAX: (630) 792-1691

FOR:  
AREA 9/10 REMEDIAL DESIGN  
SOUTHEAST ROCKFORD GROUNDWATER  
CONTAMINATION SUPERFUND SITE  
ROCKFORD, ILLINOIS

AREA 9/10 AND SITE LOCATION MAP

FIGURE

1.1

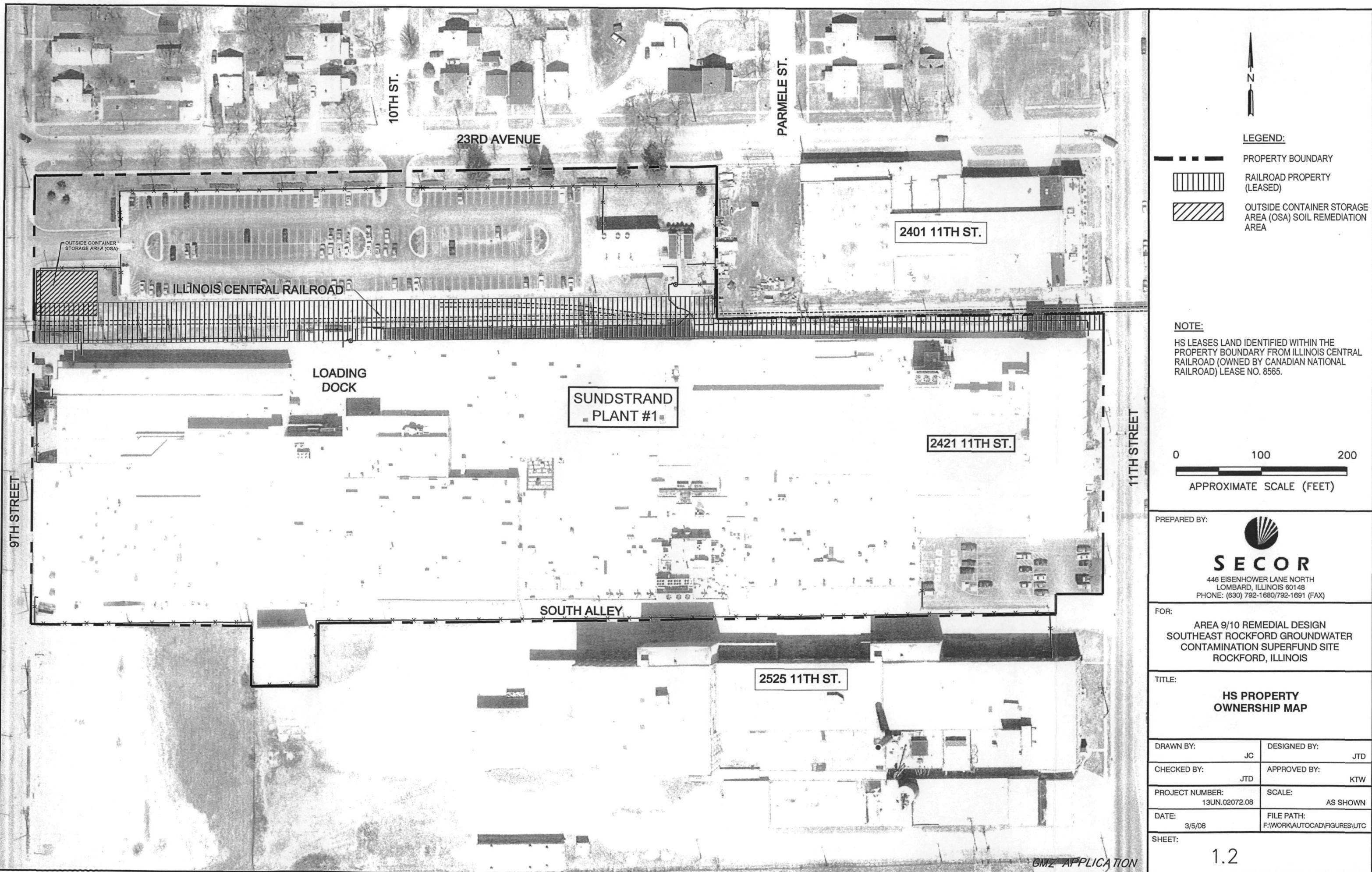
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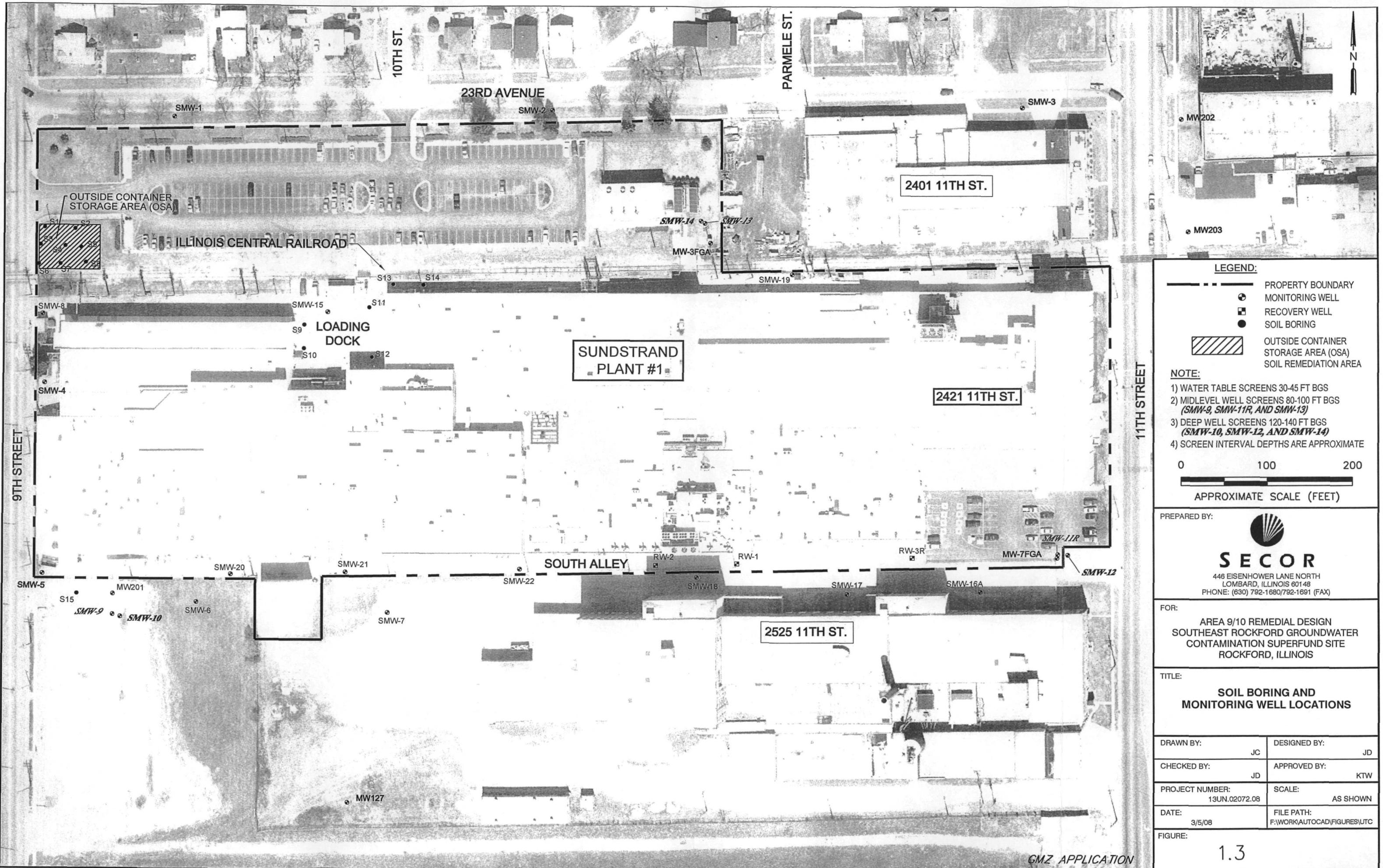
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DATE: 4/5/08





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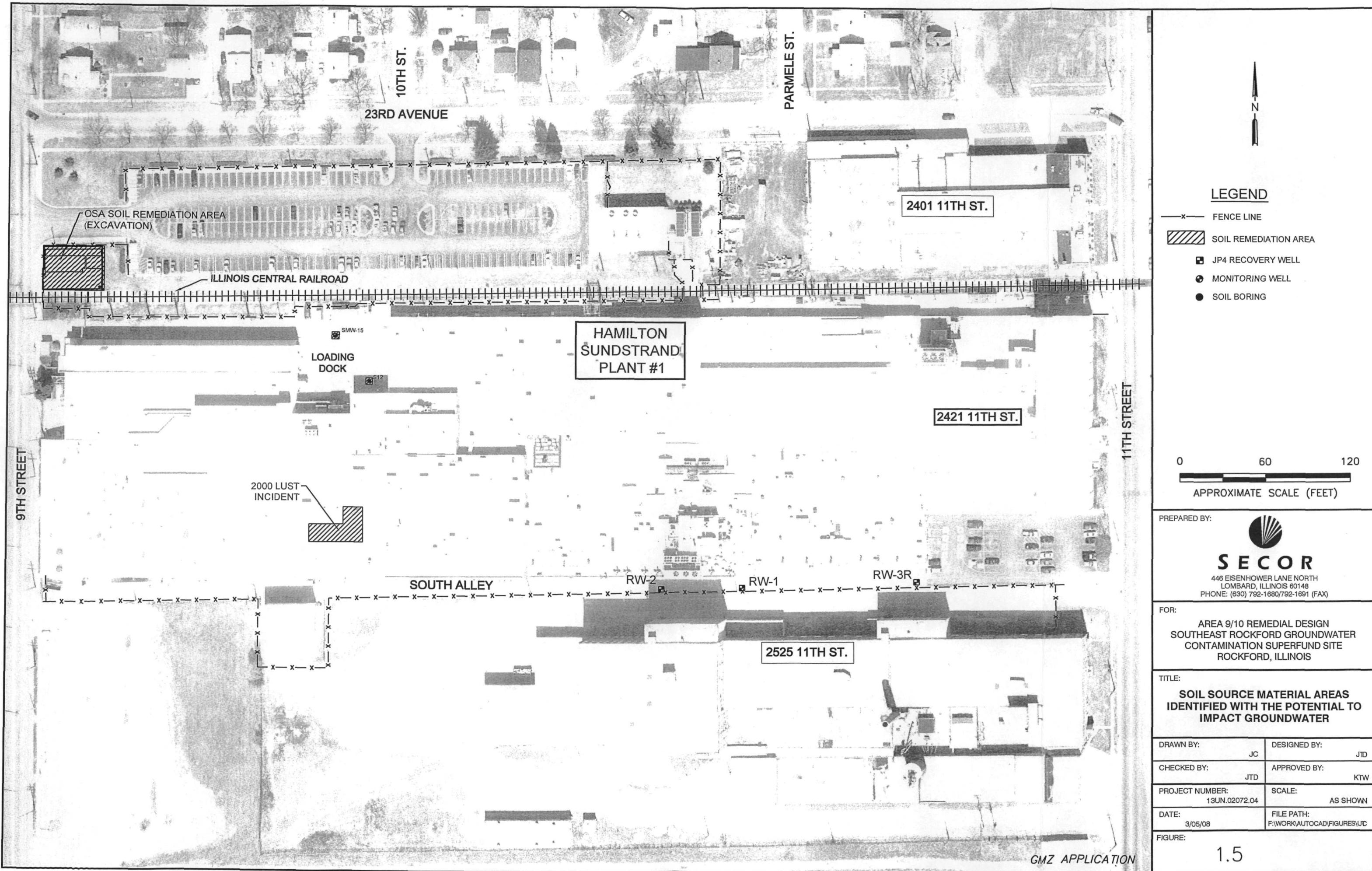
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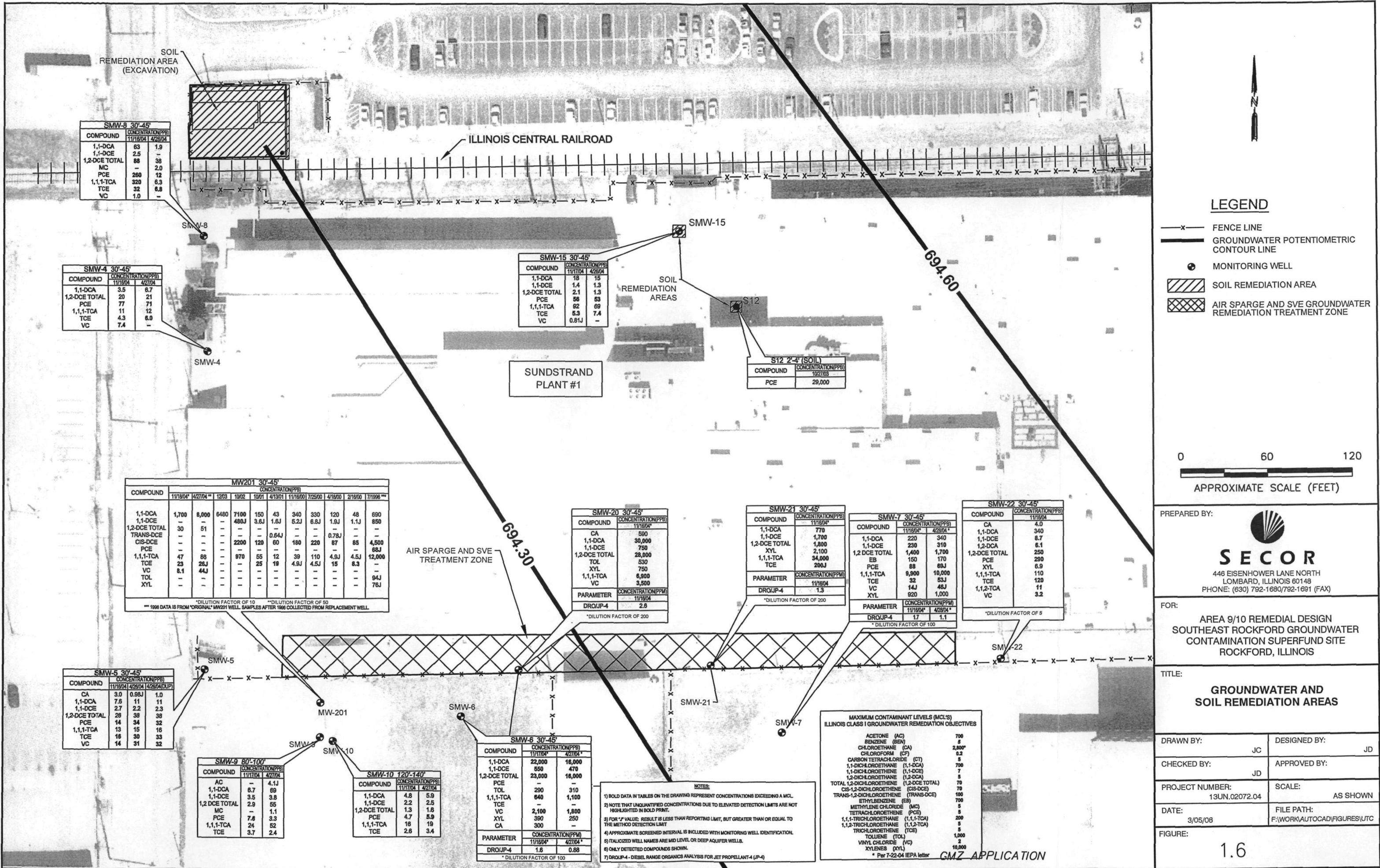
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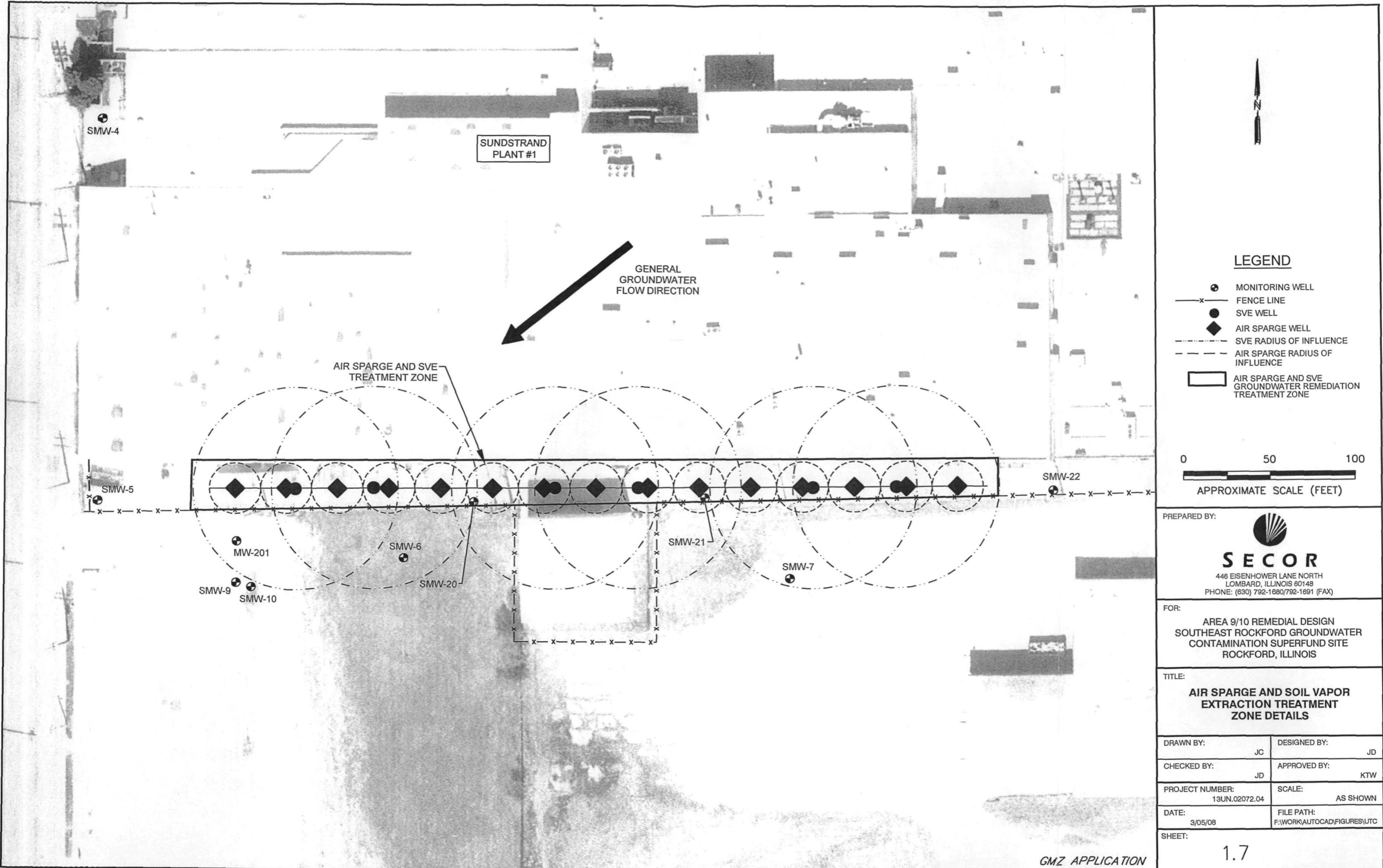
**FIGURE 1.4 – HISTORICAL GROUNDWATER ANALYTICAL RESULTS**

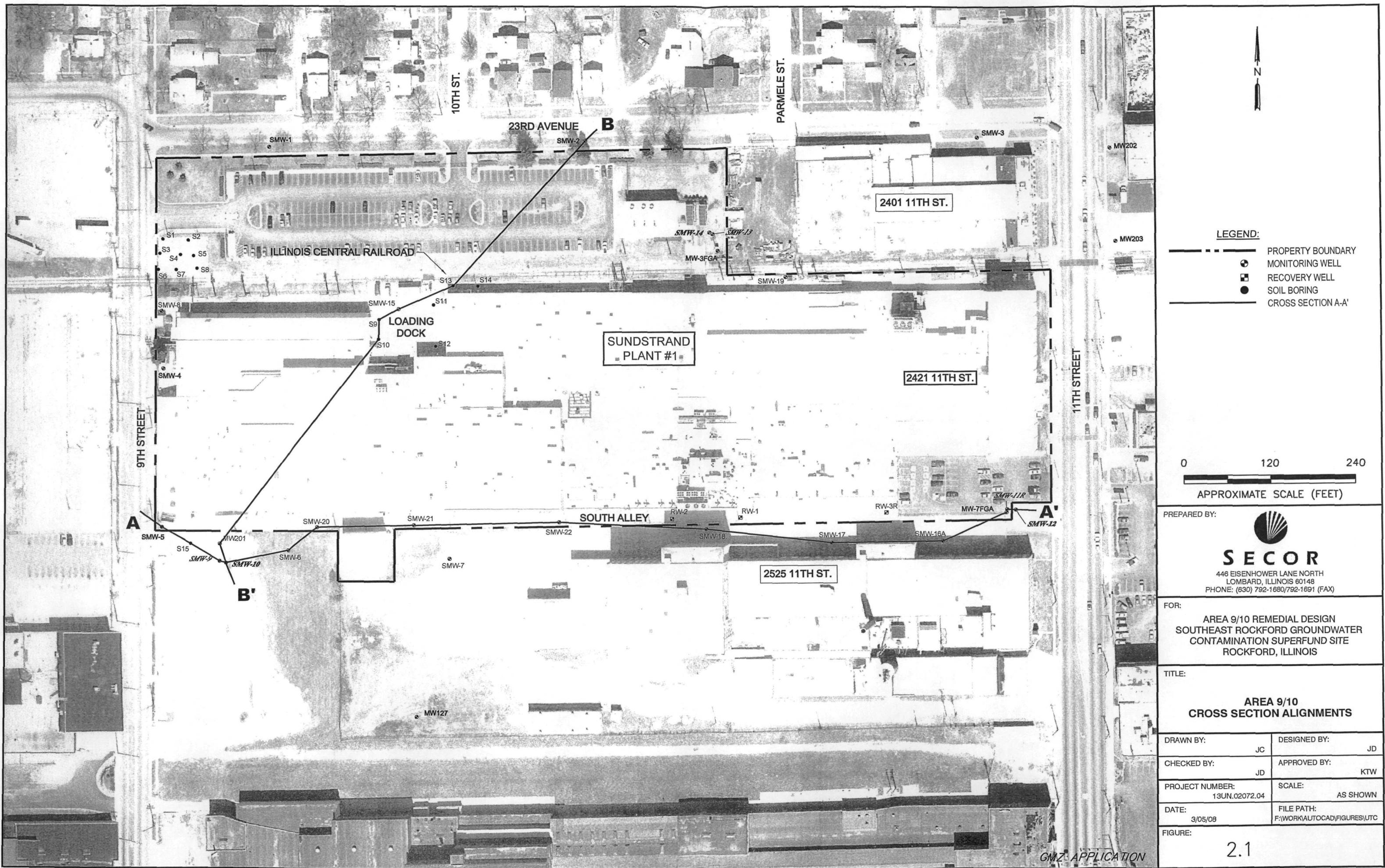
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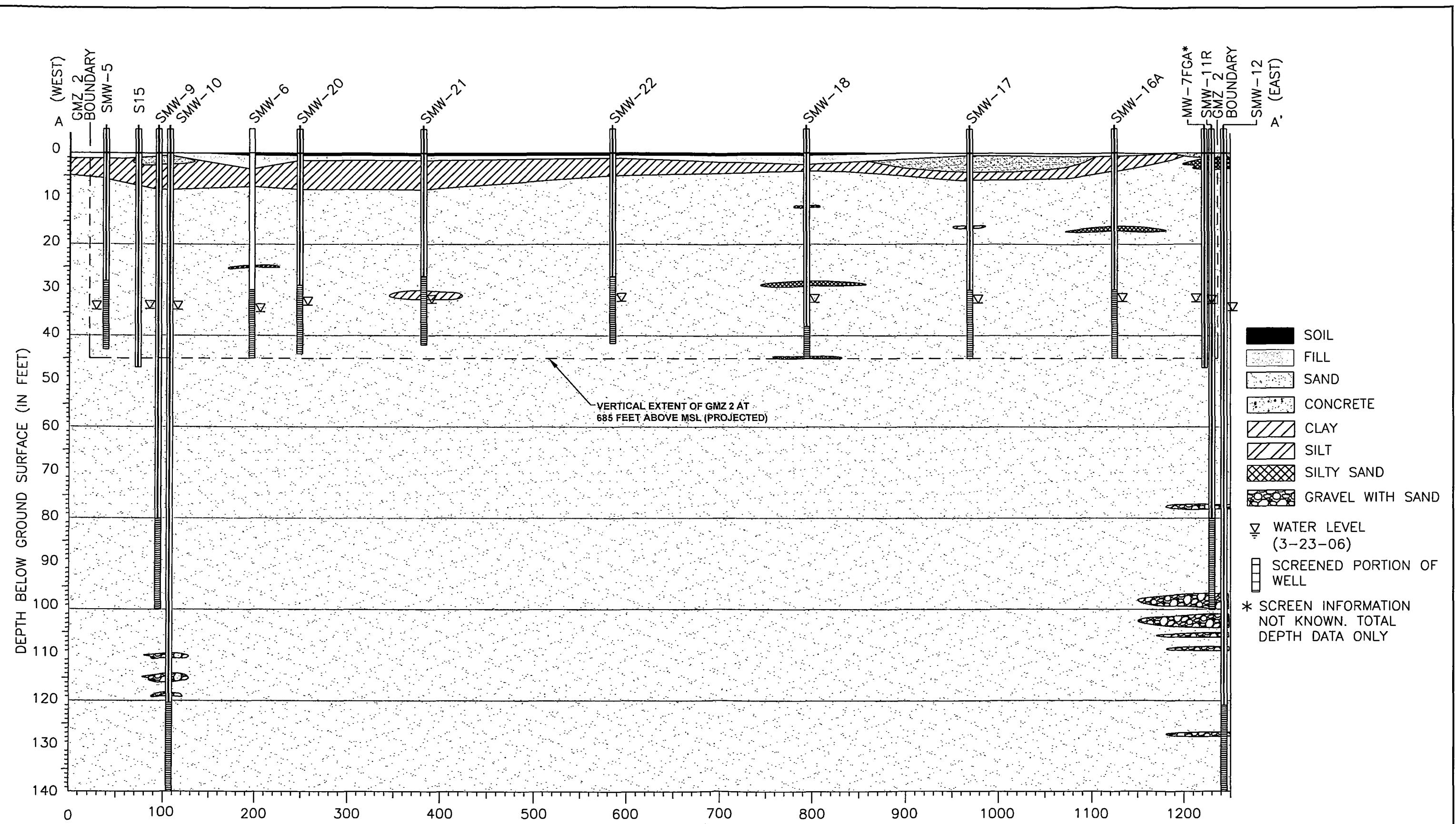
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NOTE:  
GROUND SURFACE ELEVATION APPROXIMATELY 729 FT ABOVE  
MEAN SEA LEVEL (VARIES +/- 1.5 FEET ACROSS AREA)

GMZ APPLICATION

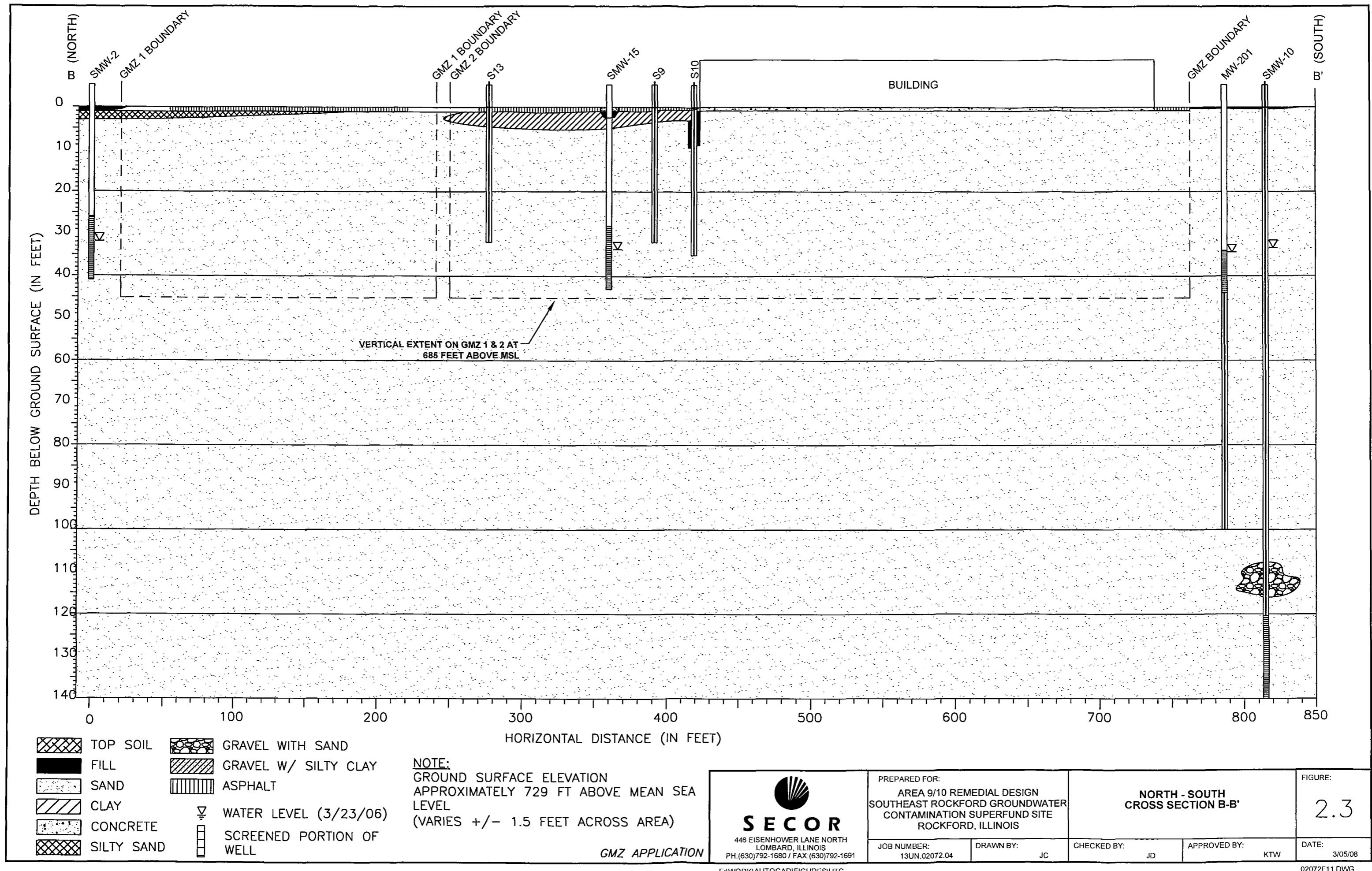


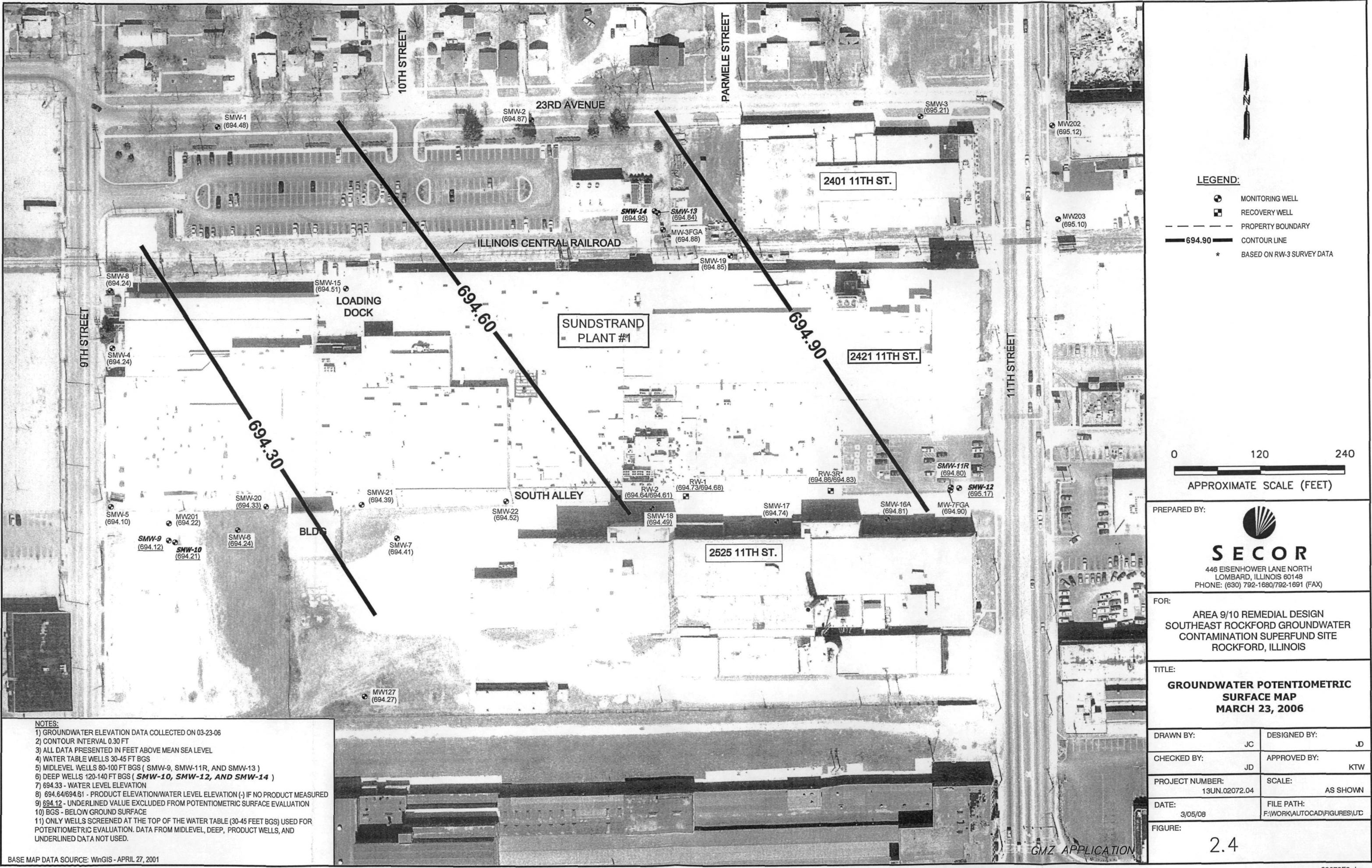
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AREA 9/10 REMEDIAL DESIGN  
SOUTHEAST ROCKFORD GROUNDWATER  
CONTAMINATION SUPERFUND SITE  
ROCKFORD, ILLINOIS

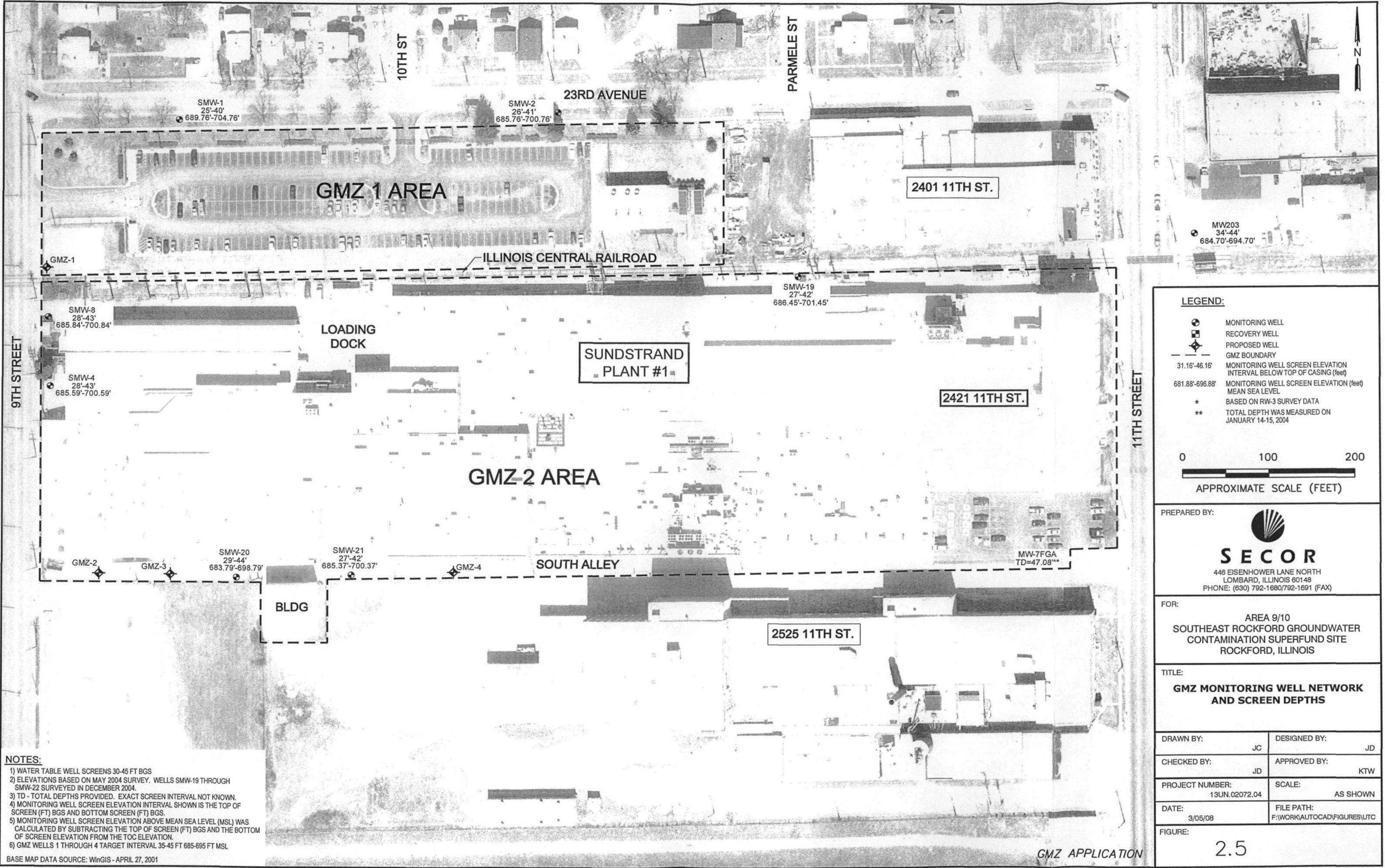
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CROSS SECTION A-A'

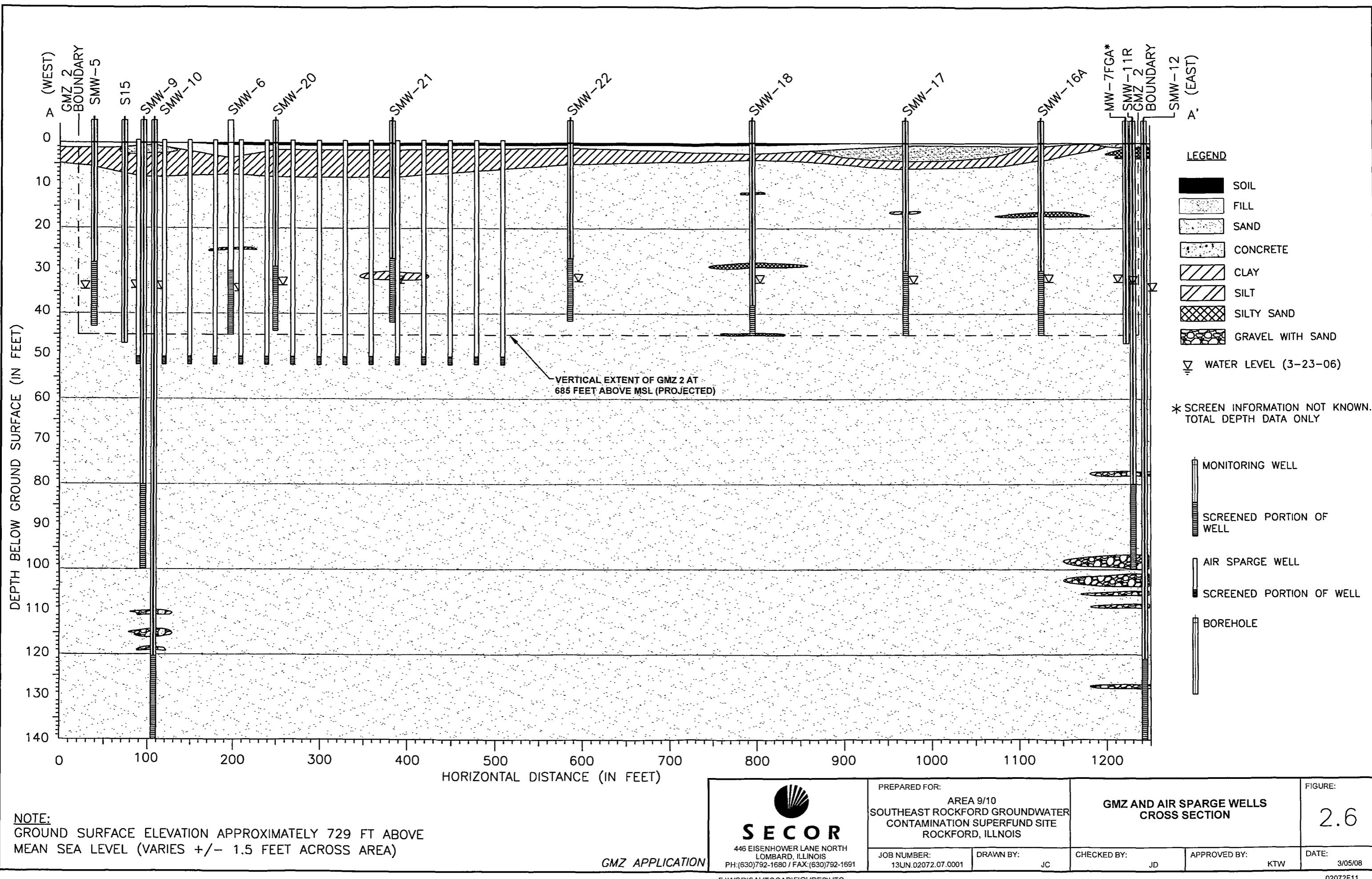
FIGURE:  
2.2

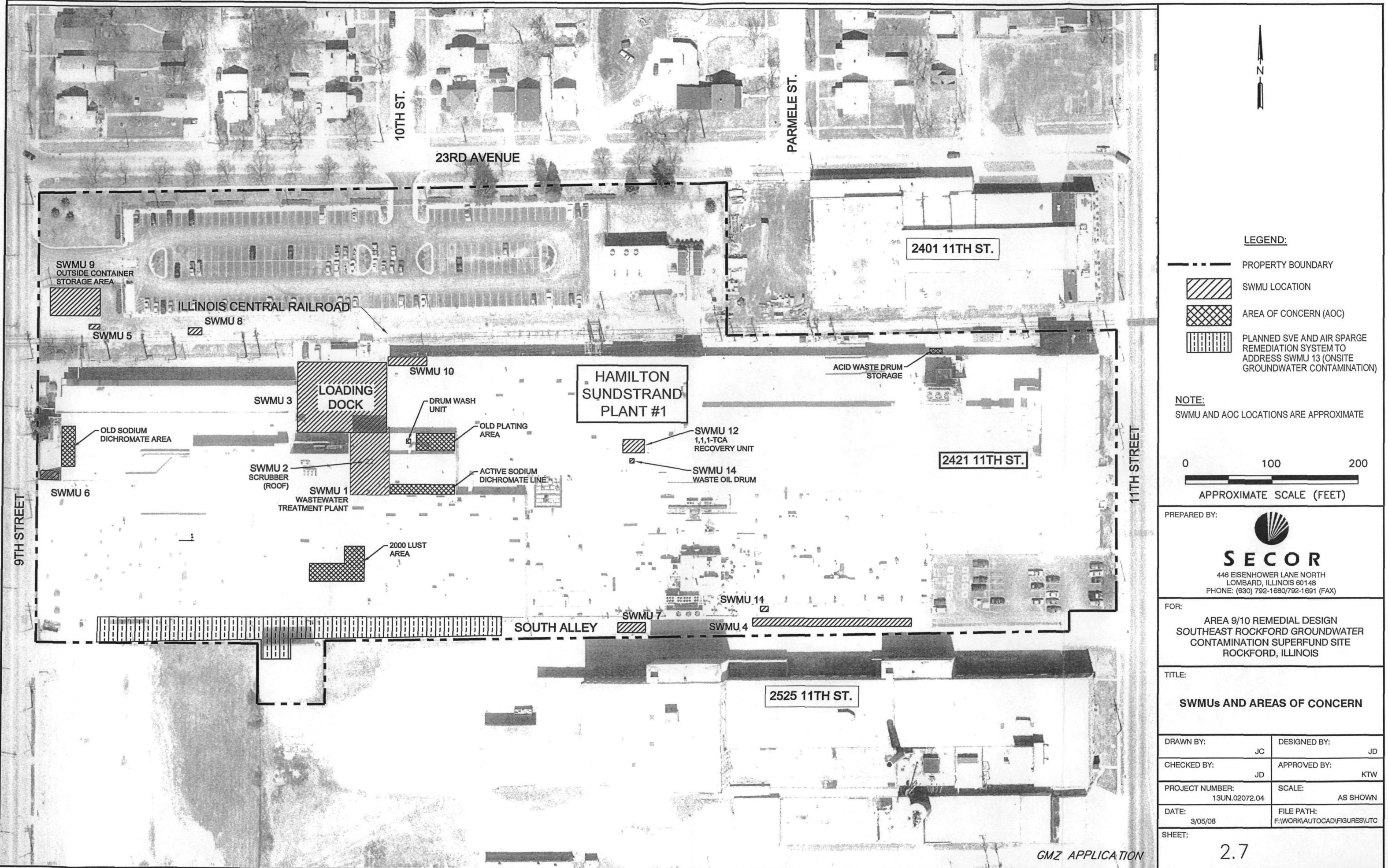
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**APPENDIX A**  
**Soil Analytical Results - 2000 LUST Incident**

**Hamilton Sundstrand**  
**LUST Area**  
**Volatiles by GC/MS**

Sample Description	EXC-SW	WW-S	EWS	WW-N	EWN	EXC-NW	TACO
Sample Depth	6-8'	6-8'	6-8'	6-8'	6-8'	6-8'	Cleanup
FID Reading (ppm)	9.1	25.1	15.1	11.7	32.9	11.0	Objectives
1,1,1-Trichloroethane	0.017	<b>7.130</b>	0.036	0.016	0.0705	0.042	2
1,1,2-Trichloroethane	0.017	<b>0.523</b>	0.0034	0.0016	0.006	<0.0009	0.02
1,1-Dichloroethene	<0.0011	0.0465	<0.0011	<0.0011	0.0011	<0.0011	0.06
1,2-Dichloroethane	<0.0012	<b>0.108</b>	<0.0012	<0.0012	0.004	<0.0012	0.02
1,2-Dichloropropane	<0.0008	<0.0216	<0.0008	<0.0008	<0.0008	<0.0008	0.03
Benzene	0.0017	<b>0.259</b>	0.0019	0.0021	0.0019	0.0012	0.03
Bromodichloromethane	<0.0007	<0.0189	<0.0007	<0.0007	<0.0007	<0.0007	0.6
Bromoform	<0.005	<0.135	<0.005	<0.005	<0.005	<0.005	0.8
Carbon tetrachloride	<0.0017	<0.046	<0.0017	<0.0017	<0.0017	<0.0017	0.07
Chloroform	<0.0013	<0.0352	<0.0013	<0.0013	<0.0013	<0.0013	0.6
cis-1,2-Dichloroethene	0.0111	<b>3.180</b>	0.012	0.0141	0.0237	<0.0011	0.4
cis-1,3-Dichloropropene	<0.0007	<0.0189	<0.0007	<0.0007	<0.0007	<0.0007	0.004
Ethylbenzene	<0.0014	0.203	<0.0014	0.0018	0.0018	<0.0014	13
Methylene chloride	<0.0027	<b>0.155</b>	<0.0027	<0.0027	<0.0027	<0.0027	0.02
Styrene	<0.0011	<0.0298	<0.0011	<0.0011	<0.0011	<0.0011	4
Tetrachloroethene	<0.0016	<b>4.220</b>	<b>3.460</b>	<b>0.965</b>	<b>4.640</b>	0.0293	0
Toluene	0.0026	0.678	0.0046	0.005	0.0047	0.0026	12
trans-1,2-Dichloroethene	<0.0011	0.0465	<0.0011	<0.0011	<0.0011	<0.0011	0.7
trans-1,3-Dichloropropene	<0.0006	<0.0162	<0.0006	<0.0006	<0.0006	<0.0006	0.004
Trichloroethene	0.0188	<b>4.580</b>	0.0547	0.0251	<b>0.0702</b>	0.0012	0.06
Vinyl chloride	<0.0013	<0.0352	<0.0013	<0.0013	<0.0013	<0.0013	0.01
Xylenes, Total	<0.005	0.534	<0.005	<0.005	0.0058	<0.005	150

All results reported in mg/kg or parts per million (ppm)

Bold print signifies an exceedence of the TACO cleanup objective.

\*TACO 6-5-97 Final Order, Appendix B: Tier I Soil Remediation Objectives for Industrial/Commercial Properties, Migration to Groundwater (GW) portion of the GW Ingestion Exposure Route Values, Class I GW.

**Hamilton Sundstrand**  
**LUST Area**  
**Semivolatile Organic Compounds GC/MS**

Sample Description	EXC-SW	INWS	EW-S	WW-N	EW-N	EXC-NW	TACO Cleanup Objectives
Sample Depth	6-8'	6-8'	6-8'	6-8'	6-8'	6-8'	
PID Reading (ppm)	9.1	25.3	15.1	11.7	32.9	11.0	
1,2,4-Trichlorobenzene	<0.041	<0.240	<0.051	<0.051	<0.041	<0.041	5
1,2-Dichlorobenzene	<0.033	<0.190	<0.041	<0.040	<0.033	<0.033	17
1,4-Dichlorobenzene	<0.039	<0.220	<0.048	<0.047	<0.039	<0.039	2
2,4,6-Trichlorophenol	<0.024	<0.140	<0.030	<0.030	<0.024	<0.024	0.2
Acenaphthylene	<0.023	<0.130	<0.028	<0.028	<0.023	<0.023	0.570
Anthracene	<0.016	<0.092	0.087	<0.020	0.024	<0.015	12,000
Benz(a)anthracene	0.041	<0.140	0.530	<0.030	0.120	<0.025	2
Benzo(a)pyrene	0.091	<0.180	0.590	<0.038	0.220	<0.031	8
Benzo(b)fluoranthene	<0.043	<0.250	<0.054	<0.053	0.480	<0.043	5
Benzo(g,h,i)perylene	0.036	<0.110	0.270	0.047	0.180	<0.020	
Benzo(k)fluoranthene	<0.043	<0.250	<0.054	<0.053	<0.054	<0.043	49
Bis(2-chloroethyl)ether	<0.039	<0.230	<0.049	<0.048	<0.040	<0.040	0.0004
Bis(2-ethylhexyl)phthalate	0.072	0.580	0.350	0.045	<0.027	0.038	3,600
Chrysene	0.056	0.230	0.560	<0.031	0.180	<0.025	160
Dibenz(a,h)anthracene	<0.026	<0.150	<0.033	<0.032	<0.033	<0.026	2
Fluoranthene	0.022	0.140	0.790	<0.019	0.079	<0.016	4,300
Fluorene	<0.022	<0.130	0.034	<0.027	<0.022	<0.022	560
Hexachlorobenzene	<0.018	<0.100	<0.022	<0.022	<0.018	<0.018	2
Hexachlorocyclopentadiene	<0.047	<0.270	<0.059	<0.058	<0.048	<0.048	400
Indeno(1,2,3-cd)pyrene	0.040	<0.140	0.250	0.053	0.120	<0.024	14
N-Nitrosodi-n-propylamine	<0.051	<0.290	<0.064	<0.063	<0.051	<0.051	0.00005
N-Nitrosodiphenylamine	<0.062	<0.350	<0.077	<0.076	<0.062	<0.062	1
Naphthalene	<0.033	<0.190	<0.041	<0.041	<0.033	<0.033	84
Pentachlorophenol	<0.050	<0.280	<0.062	<0.061	<0.050	<0.050	0.03
Phenanthrene	<0.022	<0.120	0.460	<0.026	0.061	0.022	
Phenol	<0.030	<0.170	<0.038	<0.037	<0.030	<0.030	100
Pyrene	0.061	0.260	1.0	0.024	0.190	<0.013	4,200

All results reported in mg/kg or parts per million (ppm)

\*TACO 6-5-97 Final Order, Appendix B: Tier 1 Soil Remediation Objectives for Industrial/Commercial Properties, Migration to Groundwater (GW) portion of the GW Ingestion Exposure Route Values, Class I GW.

**Hamilton Sundstrand  
LUST Area  
Heavy Metals**

Sample Description	EXC-SW	WW-S	EW-S	WW-N	EW-N	EXC-NW	TACO
Sample Depth	6 - 8'	6 - 8'	6 - 8'	6 - 8'	6 - 8'	6 - 8'	Cleanup
PID Reading (ppm)	9.1	26.3	15.1	11.7	32.9	11.0	Objectives
Arsenic	<0.577	<0.577	<0.577	<0.577	<0.577	<0.577	0.05
Barium	0.443	3.59	0.981	0.625	1.38	0.092	2.0
Cadmium	<0.028	<0.028	<0.028	<0.028	<0.028	<0.028	0.005
Chromium	<0.042	<0.042	<0.042	<0.042	<0.042	<0.042	0.1
Lead	<0.309	<0.309	<0.309	<0.309	<0.309	<0.309	0.0075
Selenium	<0.48	<0.48	<0.48	<0.48	<0.48	<0.48	0.05
Mercury	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	0.002

All results reported in mg/kg or parts per million (ppm)

\*TACO 6-5-97 Final Order, Appendix B: Tier 1 Soil Remediation Objectives for Industrial/Commercial Properties, Migration to Groundwater (GW) portion of the GW Ingestion Exposure Route Values, Class I GW.

**Hamilton Sundstrand  
LUST Area  
Polychlorinated Biphenyls (PCBs)**

Sample Description	EXC-SW	WW-S	EW-S	WW-N	EW-N	EXC-NW
Sample Depth	6 - 8'	6 - 8'	6 - 8'	6 - 8'	6 - 8'	6 - 8'
PID Reading (ppm)	9.1	26.3	15.1	11.7	32.9	11.0
Aroclor 1016	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080
Aroclor 1221	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080
Aroclor 1232	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080
Aroclor 1242	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080
Aroclor 1248	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080
Aroclor 1254	<0.080	<0.080	<0.080	<0.080	<0.080	<0.080
Aroclor 1260	<0.080	0.890	<0.080	<0.080	<0.080	<0.080

All results reported in mg/kg or parts per million (ppm)

\*TACO 6-5-97 Final Order, Appendix B: Tier 1 Soil Remediation Objectives for Industrial/Commercial Properties, Migration to Groundwater (GW) portion of the GW Ingestion Exposure Route Values, Class I GW.

**Hamilton Sundstrand**  
**6,000 - Gallon UST**  
**Volatiles by GC/MS**

Sample Description	WB	EB	NW	WW	SW	TACO Cleanup Objectives
Sample Depth:	12'	12'	8-10'	8-10'	8-10'	
PID Reading (ppm)	76.3	122	80.7	83.6	134	
1,1,1-Trichloroethane	0.034	0.0648	0.003	0.0086	0.0033	2
1,1,2-Trichloroethane	0.0047	0.0045	<0.0009	0.0013	<0.0009	0.02
1,1-Dichloroethene	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	0.06
1,2-Dichloroethane	<0.0012	<0.0012	<0.0012	<0.0012	<0.0012	0.02
1,2-Dichloropropane	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	0.03
Benzene	0.002	0.0026	0.0031	0.0029	0.0015	0.03
Bromodichloromethane	<0.0007	<0.0007	<0.0007	<0.0007	<0.0007	0.6
Bromoform	<0.005	<0.005	<0.005	<0.005	<0.005	0.8
Carbon tetrachloride	<0.0017	<0.0017	<0.0017	<0.0017	<0.0017	0.07
Chloroform	<0.0013	<0.0013	<0.0013	<0.0013	<0.0013	0.6
cis-1,2-Dichloroethene	0.0662	0.0696	0.002	0.0096	0.0035	0.4
cis-1,3-Dichloropropene	<0.0007	<0.0007	<0.0007	<0.0007	<0.0007	0.004
Ethylbenzene	0.0022	0.0028	0.0029	0.002	<0.0014	13
Methylene chloride	<0.0027	<0.0027	<0.0027	<0.0027	0.0035	0.02
Styrene	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	4
Tetrachloroethene	<b>1.740</b>	<b>3.260</b>	0.0296	0.0562	0.0425	0.06
Toluene	0.0052	0.0075	0.0069	0.0061	0.0032	12
trans-1,2-Dichloroethene	<0.0011	<0.0011	<0.0011	<0.0011	<0.0011	0.7
trans-1,3-Dichloropropene	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	0.004
Trichloroethene	0.0396	0.0496	0.0011	0.0043	0.0014	0.06
Vinyl chloride	<0.0013	<0.0013	<0.0013	<0.0013	<0.0013	0.01
Xylenes, Total	0.0082	0.0089	0.0055	<0.005	<0.005	150

All results reported in mg/kg or parts per million (ppm)

Bold print signifies the exceedence of TACO cleanup objectives.

\*TACO 6-5-97 Final Order, Appendix B: Tier 1 Soil Remediation Objectives for Industrial/Commercial Properties, Migration to Groundwater (GW) portion of the GW Ingestion Exposure Route Values, Class I GW.

**Hamilton Sundstrand**  
**6,000 - Gallon UST**  
**Semivolatile Organic Compounds GC/MS**

Sample Description	WB	EB	NW	WW	SW	TACO
Sample Depth	12'	32'	8-18'	8-10'	8-10'	Cleanup Objectives
PHD Reading (ppm)	75.3	122	30.2	88.8	134	
1,2,4-Trichlorobenzene	<0.062	<0.300	<0.041	<0.041	<0.041	5
1,2-Dichlorobenzene	<0.049	<0.230	<0.033	<0.033	<0.033	17
1,4-Dichlorobenzene	<0.058	<0.280	<0.039	<0.039	<0.039	2
2,4,5-Trichlorophenol	<0.036	<0.180	<0.024	<0.024	<0.024	0.2
Acenaphthylene	<0.034	<0.160	<0.023	<0.023	<0.023	0.570
Anthracene	0.062	0.340	<0.016	<0.016	0.043	12,000
Benz(a)anthracene	0.320	1.100	<0.025	<0.025	0.032	2
Benz(a) pyrene	0.400	1.600	<0.031	<0.031	<0.045	8
Benzo(b) fluoranthene	<0.064	<0.310	<0.043	<0.043	<0.064	5
Benzo(g,h,i) perylene	0.330	1.700	<0.020	<0.020	<0.029	
Benzo (k) fluoranthene	<0.064	<0.310	<0.043	<0.043	<0.064	49
Bis(2-chloroethyl) ether	<0.059	<0.280	<0.040	<0.040	<0.040	0.0004
Bis(2-ethylhexyl) phthalate	0.140	0.290	<0.027	<0.027	0.073	3,600
Chrysene	0.360	1.100	<0.025	<0.025	0.071	160
Dibenz(a,h) anthracene	<0.039	<0.190	<0.026	<0.026	<0.039	2
Fluoranthene	0.420	2.100	<0.016	<0.016	0.077	4,300
Fluorene	<0.033	<0.160	<0.022	<0.022	<0.022	560
Hexachlorobenzene	<0.027	<0.130	<0.018	<0.018	<0.018	2
Hexachlorocyclopentadiene	<0.071	<0.340	<0.048	<0.048	<0.048	400
Indeno(1,2,3-cd) pyrene	0.270	0.990	<0.024	<0.024	<0.036	14
N-Nitrosodi-n-propylamine	<0.076	<0.370	<0.051	<0.051	<0.051	0.00005
N-Nitrosodiphenylamine	<0.092	<0.440	<0.062	<0.062	<0.062	1
Naphthalene	<0.050	<0.240	<0.033	<0.033	<0.033	84
Pentachlorophenol	<0.074	<0.360	<0.050	<0.050	<0.050	0.03
Phenanthrene	0.130	0.510	<0.022	<0.022	0.040	
Phenol	<0.045	<0.220	<0.030	<0.030	<0.030	100
Pyrene	0.520	2.300	<0.013	<0.013	0.082	4,200

All results reported in mg/kg or parts per million (ppm)

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